
Supplemental Filing

Response to
**Data Requests 73 through 96 and
Workshop Queries 1 through 3**

In support of the

Petition for Amendment No. 1

for the

Russell City Energy Center

Hayward, California

(01-AFC-7C)

Submitted to the:

California Energy Commission

Submitted by:

Russell City Energy Company, LLC

With Technical Assistance by:



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Introduction

Attached are Russell City Energy Company, LLC's (RCEC LLC's) responses to California Energy Commission (CEC) Staff Data Requests 73 through 96 for the Russell City Energy Center (RCEC) Petition for Amendment No. 1 (01-AFC-7C). The CEC Staff served Data Requests 73 through 81 on March 30, 2007, as part of the discovery process for the RCEC amendment petition. Although these Data Requests were numbered 71 through 79, Staff had previously issued Data Requests numbered 71 and 72 as part of the March 8, 2007 Data Request package. We have therefore renumbered this series as 73 through 81 (with the numbers as issued in parentheses). On April 10, Staff issued additional Data Requests, numbered 83 through 96. These Data Requests have not been listed by discipline, but are grouped under the heading "Reconductoring Project Impact Analysis." They are included in this response package under that heading, as well. Also included in this submittal is supplemental information in response to Data Requests 16, 57, and 62, for which responses were previously provided.

In addition, at the Data Request Response and Staff Assessment Workshop held on April 9, 2007, Staff informally asked for additional information regarding the thermal plume modeling that RCEC provided on March 23, 2007 in the response to Data Request 66. These information requests are called workshop queries (WSQ) and are assigned sequential numbers (WSQ-1 through WSQ-3).

The responses are grouped by individual discipline or topic area. Within each discipline area, the responses are presented in the same order as CEC Staff presented them and are keyed to the Data Request or WSQ numbers. New or revised graphics or tables are numbered in reference to the Data Request number. For example, the first table used in response to Data Request 15 would be numbered Table DR15-1. The first figure used in response to Data Request 28 would be Figure DR28-1, and so on.

Additional tables, figures, or documents submitted in response to a data request (supporting data, stand-alone documents such as plans, folding graphics, etc.) are found at the end of a discipline-specific section and are not sequentially page-numbered consistently with the remainder of the document, though they may have their own internal page numbering system.

Air Quality

Data Request Responses 16S and 73-81

Air Quality (16S, 73-81)

Cumulative impacts analysis (supplemental)

16S. *Please provide the cumulative impacts analysis or identify the timeline for completion and submittal of the cumulative impacts analysis.*

Response: In a previous response to Data Request #16, RCEC, LLC provided a cumulative air impacts analysis of the RCEC in combination with the Eastshore Energy Center, the largest expected new source of air emissions in the RCEC project area. Because it is customary to conduct a cumulative air impacts analysis that takes into consideration all potential new or recently permitted sources (the emissions of which have not been taken into consideration in the baseline air monitoring data), the following is a supplement to the response to Data Request 16 that considers the other sources in addition to Eastshore. These sources were not considered previously because the applicable data had not yet been made available by the Bay Area Air Quality Management District (BAAQMD).

Since the previous submittal, the BAAQMD has provided an emissions inventory of sources located within six (6) miles of RCEC. These additional sources, listed below, were included in an updated cumulative impact modeling assessment. As expected, these additional sources within a six-mile radius of RCEC did not significantly change the results provided previously (Tables DR16S-1 and -2).

TABLE DR16S-1
Modeled Stack Parameters for Proposed Sources provided by BAAQMD*

Facility#-Source	Stack Height (meter)	Stack Diam. (meter)	Stack Temp (deg K)	Exhaust Velocity (m/s)	Stack Coordinates (meters)-NAD27		
					X	Y	Z**
#00698-Georgia Pacific Gypsum Emer. Generator	2.134	0.500	750.37	46.94	572807	4173361	7.8
#16440-Hayward Public Works Emer. Generator***	5.486	0.500	763.71	46.94	579654	4163912	3.1
#16451- Hayward Public Works Emer. Gen	2.591	0.250	740.37	56.29	575910	4168060	2.4
#17037-Elder Care Alliance Emer. Generator	2.286	0.333	844.26	49.63	585526	4160731	12.2
#17548-Alameda County Nat. Gas Boiler****	6.096	1.674	422.04	4.96	577886	4174623	129.9
#17553-Rohm & Haas Pyrolysis Furnace	7.925	1.167	1033.15	6.42	577238	4165215	3.4
#17553-Rohm & Haas Reg. Thermal Oxidizer	9.144	2.498	377.59	4.15	577238	4165215	3.4
#17621-Skywest Emer. Gen	11.582	1.333	733.15	47.03	578142	4168365	11.6
#18189-Astra Zeneca Emer. Gen	2.134	0.500	710.37	27.19	577689	4166266	7.8

*Those facilities with emissions of pollutants other than VOC only.

**Source elevations taken from nearest point in USGS DEM datafiles with 10-meter spacing.

***Exit velocity conservatively revised to match previous similar source (BAAQMD velocity too high).

****Facility emissions given for three sources (two identical boilers and one emer.gen). All emissions modeled from one of the two boilers. Stack flowrate and temperature revised to reflect available information for similar sized boilers (BAAQMD values were unrealistic).

TABLE DR16S-2

Modeled Emissions for Proposed Sources provided by BAAQMD

Facility#-Source	Emission Rates (g/s)			
	NO _x	SO ₂	CO	PM ₁₀ /PM _{2.5}
#00698-Georgia Pacific Gypsum Emer.Gen	0.001927	0.000086	0.000777	0.000058
#16440-Hayward Public Works Emer.Gen	0.001093	0.000058	0.000173	0.000029
#16451- Hayward Public Works Emer.Gen	0.000748	0.000029	0.000058	0.000029
#17037-Elder Care Alliance Emer.Gen	0.001093	0.000058	0.000173	0.000029
#17548-Alameda County Nat.Gas Boiler	0.080001	0.001985	0.158421	0.010701
#17553-Rohm & Haas Pyrolysis Furnace	0.004603	0.000288	0.008371	0.002273
#17553-Rohm & Haas Reg.Thermal Oxidizer	0.041137	0.000086	0.003279	N/A
#17621-Skywest Emer.Gen	0.019878	0.000633	0.002359	0.000403
#18189-Astra Zeneca Emer.Gen	0.000863	N/A	0.000432	0.000029

Table DR16S-3 summarizes the results of the cumulative modeling analysis with the Eastshore project and the BAAQMD-provided inventory. These concentrations are very similar to the concentrations provided previously to the CEC.

TABLE DR16S-3

Cumulative Impacts Modeling Results (µg/m³)

Pollutant	Averaging Time	Maximum Multisource Concentration (µg/m ³)	Background (µg/m ³)	Total Ambient Concentration (µg/m ³)	State Standard (µg/m ³)	Federal Standard (µg/m ³)
NO ₂	1-hour	226.83	143.0	369.83	470	-
	Annual	1.12	32.0	33.12	-	100
SO ₂	1-hour	7.33	102.2	109.53	655	-
	3-hour	6.61	49.4	56.01	1300	1300
	24-hour	1.10	23.5	24.60	105	365
	Annual	0.075	8.0	8.075		80
CO	1-hour	1199.94	3680.0	4879.94	23,000	40,000
	8-hour	222.66	2178.0	2400.66	10,000	10,000
PM ₁₀	24-hour	8.29	51.7	59.99	50	150
	Annual	0.81	18.1	18.91	20	50
PM _{2.5}	24-hour	4.36	37	41.36	-	65
	Annual	0.81	9.4	10.21	12	15

Modeled and Background PM_{2.5} 24-hour averages, for comparison to the federal standard, are the maximum 3-year average of the annual 98th percentile 24-hour concentrations (i.e., for modeled impacts equal to the 8th highest concentration at each receptor).

As can be seen, maximum modeled concentrations are less than the CAAQS and NAAQS for all pollutants and all averaging times. Maximum total ambient (modeled plus background) concentrations are greater than the CAAQS for 24-hour PM₁₀. Maximum total ambient (modeled plus background) concentrations for all other pollutants and averaging times are less than the CAAQS and NAAQS.

Maximum total ambient (modeled plus background) concentrations exceed the applicable PM₁₀ CAAQS because the background concentrations already exceed the applicable standards (e.g., there were no modeled PM₁₀ concentrations without background greater than the CAAQS). The project is located in a state non-attainment area for PM₁₀. Since the

modeled multisource impacts by themselves, without considering background, are less than the PM₁₀ ambient air quality standards, the projects do not cause or contribute to the regional non-attainment status because the projects are located in a state non-attainment area and project emissions will be mitigated for the modeled exceedances to a level of insignificance.

Emission calculations

73 (71) *Please provide actual calculations, assumptions, and methods used to estimate the facility's daily and annual emissions of NO_x, VOC, SO_x, CO, and PM₁₀/PM_{2.5} that are shown in Tables 3.1-3 through 3.1-5.*

Response: The response is provided below for each emission category.

Cooling tower – The facility's cooling tower emissions are based on the standard cooling tower emission equation as follows:

$$(\text{TDS mg/l})(\text{gpm})(60 \text{ mins/hr})(8.33 \text{ lbs/gal})(\text{drift fraction})(0.000001)$$

These calculations and assumptions are presented in Appendix Table 3.1A-8.

Fire pump engine – The emissions from the proposed fire pump engine as presented in Table 3.1-4 are calculated based upon the emissions factors in terms of g/hp-hr, the rated hp of the engine, and the total proposed hours of runtime per day and per year, and the conversion factor for grams to pounds.

$$((\text{EF g/hp-hr})(\text{HP})(\text{runtime}))/453.59$$

These final calculations and assumptions are presented in Appendix Table 3.1A-10.

Ammonia slip – The ammonia slip emissions are calculated based upon the standard emissions equation as follows:

$$D6 \cdot D7 / D8 \cdot (14.0067 + 1.00797 \cdot 3) / 10^6 \cdot (0.209 - E9 / (1 - E10)) / (0.209 - 0.15) \cdot (1 - E10)$$

where: D6 = NH₃ limit, ppm @15%O₂

D7 = exhaust rate, lbs/hr

D8 = exhaust gas molecular weight

E9 = mole fraction O₂ in exhaust

E10 = mole fraction H₂O in exhaust

The calculations and assumptions are presented in Appendix Table 3.1A-1.

Turbine and HRSG – The turbine and HRSG emissions are calculated as follows:

- Total heat rate of each turbine/HRSG set is 2238.8 MMbtu/hr.
- Total heat rate of each turbine/HRSG set multiplied by the EFs (lbs/MMbtu) per Table 3.1-3 yields the normal operational (non-startup) hourly emissions
- The maximum daily emissions per turbine/HRSG set are the normal daily operational hours multiplied by the normal operational hourly emissions, plus the emissions from any required startups (worst case cold start) and shutdowns derived

from Table 3.1-6. Thus, the worst-case day for NO_x, POC, and CO assume 18 hours of base load with duct firing plus one cold start lasting 6 hours. For SO₂ and PM₁₀, the worst-case day is based upon 24-hour of base load operation with duct firing.

- d. The annual emissions per turbine/HRSG are the total normal operational emissions plus the startup and shutdown emissions (based upon the total hours of startup and shutdown per year and the types of startups expected, i.e., cold, warm, or hot).
- e. The total hourly emissions from all turbines/HRSGs are the values calculated in a. through d. above multiplied by the number of turbine/HRSG sets.

VOC emission rates

74 (72) *Table 3.1-3 lists the proposed maximum permitted VOC emissions for each turbine as 2.82 lbs/hour, which corresponds to a VOC stack concentration of 2 ppm@15% O₂ (Data Response #6, pp. 10). Table 3.1A-4 (in the appendix) shows each turbine's hourly VOC emissions are equal to 5.6 lbs/hour, but still at a 2 ppm VOC concentration. Please explain the differences between the two emission rates (i.e., the lbs/hr values).*

Response: The 5.6 lbs/hr value is an intermediate, uncontrolled value. The “permitted stack emissions” values as delineated on page 4 of Table 3.1A-4 are the correct values. The 2.82 lbs/hr VOC emissions estimate is a controlled value based upon the assumption that the proposed CO oxidation catalyst reduces VOCs by approximately 50 percent. The VOC emission rate of 2.82 lbs/hr/turbine is equivalent to the proposed VOC BACT limit for VOC at 2.0 ppm (@15% O₂).

NO_x and VOC emission reduction credits

75 (73) *Please identify additional NO_x and VOC emission reduction credits to fully mitigate the project's daily ozone precursor impacts.*

Response: No additional NO_x and POC emission reduction credits are proposed. BAAQMD regulations 2-2-215, 302, and 303 require RCEC to provide emission offsets, on a tons per year basis, when emissions exceed specified levels on a pollutant-specific basis. Regulation 2-2-302 requires NO_x and POC to be offset because both NO_x and POC contribute to Bay Area ozone levels. Thus, the proposed offsets of 154.8 tons per year of NO_x and 27.8 tons per year of POC will fully mitigate the project's daily ozone precursor impacts.

Mitigation measures

76 (74) *If additional emission reduction credits are not being considered, please identify other mitigation measures to reduce the daily emission liability to lessen the facility's impacts on the environment. These can be new technologies that are designed to reduce the start-ups or start-up times (e.g., Rapid Start Process by GE or Benson Once-Through boiler design by Westinghouse). Alternatively, conditions on scheduling of electrical delivery so that simultaneous start-up of both turbines, or excessive start-up events during ozone season can be avoided could be used to reduce daily emissions and impacts.*

Response: The ability to start both turbines at the same time on a daily basis was included in the air quality dispersion modeling analysis, which demonstrated that no impacts would

occur to ambient air quality standards. Further, the project's emissions of ozone-producing compounds, specifically NO_x and POC, will be mitigated to levels of insignificance through the use of emission reduction credits.

The Applicant will not control the scheduling of electrical delivery and thus will also have no control over the simultaneous start-up of both turbines, or the total number of start-up events.

Start-up times

77 (75) *This facility employs the Westinghouse 501 FD turbines, which are the same turbines employed in the Sutter Energy Center that are currently owned and operated by Calpine. According to available source test results, these turbines, even without improvement to reduce start-up times, have met much lower start-up and shut down emission limits than are requested in this amendment request. Please provide explanations of why such high start-up and shut down emission limits are being proposed.*

Response: The proposed start-up emissions are based upon potential vendor-supplied emissions data and on operating experience with other projects owned by Calpine. Source test results represent instantaneous actual emissions and are used to demonstrate compliance with the permitted potential emission limits. While actual emissions are typically lower than potential emission limits, actual data will change over time as the air pollution control devices age as well as the turbine(s). In addition, emissions during a turbine start can vary from start to start making the use of actual data difficult to use as potential emission limits.

The potential emissions during a turbine start were modeled and demonstrated compliance with the ambient air quality standards. The emission reduction credits are also based upon the potential emissions during a start. Thus, the turbine starts will not cause an exceedance of the ambient air quality standards and the projects emissions will be mitigated to levels of insignificance.

ERC schedules

78 (76) *Please provide an approximate schedule when SO_x and PM₁₀/PM_{2.5} emission reduction credits, which will mitigate the project's emission impacts, will be identified and then provided.*

Response: The RCEC project license identifies a schedule for PM₁₀/PM_{2.5} emission reduction credits through the use of a fireplace retrofit program. To date, no agreement with CEC Staff has been made with regards to using SO_x for PM₁₀/PM_{2.5}. Thus, no updated schedule is proposed at this time for SO_x.

PM₁₀/PM_{2.5} mitigation

79 (77) *Table 3.1-5 identifies that the project PM₁₀/PM_{2.5} emissions would be limited to 86.8 tons/yr, and Calpine has proposed to only mitigate the project PM₁₀, PM_{2.5} and SO_x emissions during the fall and winter months. Thus the proposed revised condition AQ-58 only identifies 43.4 tons of PM₁₀/PM_{2.5} liabilities (fall and winter, or half a year) to be mitigated. The January 2007 Data Response re-stated that Calpine would only provide*

50 percent of the project's annual PM₁₀/PM_{2.5} emissions liability. For any one day, the project can emit 500 lbs of PM₁₀/PM_{2.5} and the committed emission reduction credits for mitigation would only be approximately 238 lbs/day. Thus, for any one day more than 50 percent of the project daily emissions are not mitigated. Please identify additional emission reduction credits for PM₁₀/PM_{2.5}.

Response: The Applicant is proposing to offset the project's PM₁₀/PM_{2.5} emissions during the fall and winter months by providing mitigation for up to 43.4 tons of particulate matter. The PM₁₀/PM_{2.5} emissions would be mitigated during the traditional fall and winter PM₁₀/PM_{2.5} non-attainment season(s). These proposed offsets are consistent with the currently approved mitigation plan that would provide the same level of mitigation (476 lbs/day of PM₁₀/PM_{2.5} on a seasonal basis, or 238 lbs/day on an annual basis (43.4 tons * 2000 lbs/ton / 182.5 days = 476 lbs/day). While the project could theoretically emit potential PM₁₀/PM_{2.5} emissions of up to 500 pounds per day, the actual emissions of PM₁₀/PM_{2.5} from the project are expected to be less, based upon source test data from similar power plants. Source data from recently-tested Calpine power plants have hourly PM₁₀/PM_{2.5} emission rates in the range of 5 to 7 lb/hr. Thus, whether the emissions are mitigated by the currently approved mitigation plan or by the proposal to use SO_x for PM₁₀/PM_{2.5}, the project's daily emissions of PM₁₀/PM_{2.5} will be mitigated to levels of insignificance.

SO_x for PM₁₀ trading ratio

80 (78) *Staff asked in the December 22, 2006 Data Request for an analysis demonstrating that the use of the proposed 3 to 1 SO_x for PM₁₀ trading ratio would mitigate the project's new PM₁₀/PM_{2.5} emissions impacts. Calpine has not provided such analysis; instead, they cited other licensed projects that use the same trading ratio to request approval for the use of such ratio. Because each area and region can have different atmospheric chemistry and emissions inventory, a previous SO_x to PM trading ratio may not be appropriate for use in this case. Please provide an analysis calculating a SO_x for PM₁₀ interpollutant trading ratio for this project or demonstrating that the proposed 3 to 1 SO_x for PM trading ratio would mitigate this project's PM₁₀/PM_{2.5} emissions impact.*

Response: Based upon our previous response, we believe the 3:1 SO_x to PM₁₀/PM_{2.5} ratio is more than sufficient to result in a net air quality benefit. After careful consideration, the BAAQMD Staff have recently approved an interpollutant trading ratio of 3:1 for SO_x to PM₁₀/PM_{2.5} for at least two projects in the Bay Area District: the Potrero Unit 7 Project in San Francisco and the East Altamont Energy Center. The dispersion conditions and source inventories of PM₁₀/PM_{2.5} and SO₂ for these two projects are substantially similar to conditions for RCEC. Potrero Unit 7 is upwind of RCEC and the East Altamont Energy Center is downwind of RCEC. In its final decision on the East Altamont project, the Commission thoroughly reviewed the extensive analysis presented by the Applicant, the BAAQMD, the SJVUAPCD and the Commission Staff and concluded that the proposed mitigation was adequate to mitigate PM₁₀ emissions to a level of insignificance (EAEC Final Decision, pp. 143-150). The Commission carefully reviewed the BAAQMD analysis and all of Staff's objections and found "no reason to override" the BAAQMD decision (EAEC Final Decision, p. 145). Therefore, in the absence of any showing by the Commission Staff that there are significant differences in the dispersion conditions and source inventories between RCEC, EAEC and Potrero 7, there is no need to perform any additional analysis and there is

no reason to override the BAAQMD's determination on this issue. In addition, BAAQMD staff have clearly indicated that the ratio should be based on the winter PM episode data, not annual average data.

If the Commission finds this proposed mitigation to be incorrect, the Commission can apply the mitigation plan for PM₁₀ as outlined in our approved PM₁₀ Mitigation Plan dated April 4, 2002.

Cumulative construction impacts analysis

81 (79) *Because this facility and the recently submitted Application for Certification of the Eastshore facility have approximately the same construction timeline. Please include in the cumulative impact analysis the construction impacts of both facilities, and of the construction of Interstate 880 and Route 92 interchange that also may occur during the RCEC construction time frame.*

Response: An ISCST3 modeling analysis was previously provided to the California Energy Commission for air quality impacts due to construction activities associated with the proposed RCEC facility. The CEC has requested an analysis of cumulative impacts due to the potential for simultaneous construction activities at both the RCEC facility and the nearby proposed Eastshore Energy Center (Eastshore) facility (Eastshore is a proposed new power plant energy near Industrial Boulevard in Hayward, California, approximately 0.5 miles east of the RCEC site). The CEC requested also that the construction impacts of the California Department of Transportation's planned reconstruction of the Interstate 880/State Route 92 interchange be included in this analysis. At this time, no construction emissions data is readily available for the I-880/SR-92 project and so this project could not be included in the analysis. Further, based on the modeling results summarized below, the potential for cumulative construction impacts to cause violations of the ambient air quality standards is very low. Given that all three projects will have the construction impacts mitigated to levels of insignificance for CEQA compliance, little to no potential for air quality impacts is expected to occur. Current estimates of maximum construction impacts for the two facilities separately are shown below in Table DR81-1.

Maximum modeled impacts due to construction activities separately for either the RCEC or Eastshore facilities are less than the National Ambient Air Quality Standards (NAAQS) for all pollutants and averaging times. Maximum modeled impacts for RCEC construction activity impacts are greater than the California Ambient Air Quality Standard (CAAQS) for PM₁₀ 24-hour averaging times. Maximum modeled impacts due to construction activities separately for both the RCEC and Eastshore facilities are less than the CAAQS for all other pollutants and averaging times.

TABLE DR81-1
Construction Impacts Modeling Results (µg/m³) for each facility separately

Pollutant	Averaging Time	RCEC Construction (µg/m ³)	Eastshore Construction (µg/m ³)	Background (µg/m ³)	State Standard (µg/m ³)	National Standard (µg/m ³)
NO ₂	1-hour	114.9	267.6	143.0	470	-
	Annual	5.3	16.6	32.0	-	100
SO ₂	1-hour	22.6	64.0	102.2	655	-
	3-hour	19.3	52.6	49.4	1300	1300

TABLE DR81-1

Construction Impacts Modeling Results ($\mu\text{g}/\text{m}^3$) for each facility separately

Pollutant	Averaging Time	RCEC Construction ($\mu\text{g}/\text{m}^3$)	Eastshore Construction ($\mu\text{g}/\text{m}^3$)	Background ($\mu\text{g}/\text{m}^3$)	State Standard ($\mu\text{g}/\text{m}^3$)	National Standard ($\mu\text{g}/\text{m}^3$)
	24-hour	7.0	19.4	23.5	105	365
	Annual	1.6	3.8	8.0		80
CO	1-hour	50	177	3680	23,000	40,000
	8-hour	35	123	2178	10,000	10,000
PM ₁₀	24-hour	55.3	22.5	51.7	50	150
	Annual	5.8	5.3	18.1	20	50
PM _{2.5}	24-hour	11.8	N/A	37 ^a	-	65
	Annual	1.5	N/A	9.4	12	15

^aPM_{2.5} 24-hour background, for comparison to the federal standard, is the 3-year average of the annual 98th percentile 24-hour concentrations. Modeled 24-hour PM_{2.5} concentrations are the maximum modeled 24-hour concentration.

Maximum total ambient concentrations can be conservatively estimated as the sum of the maximum modeled ISCST3 impacts for each facility separately plus background (regardless of the locations and periods of meteorological data for the maximum modeled impacts). Under this conservative assumption, maximum combined impacts for SO₂ and CO for all averaging times and NO₂ for annual averaging times are less than both the NAAQS and the CAAQS. Therefore, a cumulative impact assessment was not performed for these pollutants and averaging times. In addition, the PM₁₀ combined impacts (maxima for both facilities plus background) due to construction activities are less than the NAAQS for either 24-hour or annual averaging times. Impacts for primary emissions of fine particulate matter (PM_{2.5}) due to construction activities were not provided in the Eastshore filings to date.

Cumulative impact analyses for NO₂ (1-hour averaging times) and PM₁₀ and PM_{2.5} (24-hour and annual averaging times) were prepared for construction activities at both facility sites using the information presented in the CEC filings to date. This included modeling on-site construction emissions from combustion sources as point sources evenly spaced over the on-site construction area – 28 point sources in the case of RCEC and 44 point sources for Eastshore. Fugitive particulate emissions were modeled as area sources for the main on-site construction area for RCEC and for the main on-site and laydown construction areas for Eastshore. The downwash and fence line receptor grids for both facilities were modeled, together with the RCEC coarse and intermediate grids and model options from the previous analysis of construction impacts for RCEC. For NO₂, 1-hour impacts were calculated using the ISC3OLM model combined-plume option. For PM₁₀ and PM_{2.5}, the ISCST3 model was used to calculate 24-hour and annual impacts. For other pollutants (SO₂ and CO) or averaging times (NO₂ annual), combined maximum impacts are shown as the sum of each facility's maximum impact determined previously regardless of location or meteorological period. These maximum cumulative impacts due to construction activities at both facilities are shown below in Table DR81-2.

Total cumulative impacts due to construction activities (modeled impacts plus background) for RCEC and Eastshore facilities combined for NO₂, SO₂, CO, and PM_{2.5} are less than all applicable NAAQS/CAAQS. Total PM₁₀ cumulative impacts due to construction activities (modeled impacts plus background) are less than the NAAQS, but greater than the CAAQS and are similar to the previous modeled construction impacts for RCEC. The 24-hour PM₁₀

CAAQS is already exceeded (and very nearly equaled in the case of the annual PM₁₀ CAAQS) in the absence of construction emissions, based on background concentrations alone. Fugitive particulate impacts as currently modeled would be expected to occur in the immediate vicinity of the modeled sources and, as expected, maximum cumulative PM₁₀/PM_{2.5} impacts are nearly identical to the previous maximum modeled impact for either facility when modeled individually. As the modeling indicates, the maximum construction impacts for PM₁₀/PM_{2.5} occur within the immediate vicinity of the construction activity and decrease rapidly with distance.

TABLE DR81-2

Cumulative Construction Impacts Modeling Results (µg/m³) for RCEC and Eastshore facilities

Pollutant	Averaging Time	Cumulative Modeled Impact (µg/m ³)	Background (µg/m ³)	Total Impact (µg/m ³)	State Standard (µg/m ³)	National Standard (µg/m ³)
NO ₂	1-hour	255.6	143.0	398.6	470	-
	Annual	21.9	32.0	53.9	-	100
SO ₂	1-hour	86.6	102.2	188.8	655	-
	3-hour	71.9	49.4	121.3	1300	1300
	24-hour	26.4	23.5	49.9	105	365
	Annual	5.4	8.0	13.4	-	80
CO	1-hour	227	3680	3907	23,000	40,000
	8-hour	158	2178	2336	10,000	10,000
PM ₁₀	24-hour	55.3	51.7	107.0	50	150
	Annual	5.9	18.1	24.0	20	50
PM _{2.5}	24-hour	11.8	37 ^a	48.8	-	65
	Annual	2.1	9.4	11.5	12	15

^aPM_{2.5} 24-hour background, for comparison to the federal standard, is the 3-year average of the annual 98th percentile 24-hour concentrations. Modeled 24-hour PM_{2.5} concentrations are the maximum modeled 24-hour concentration.

The ISCST3 model over-predicts construction emission impacts due to the cold plume (i.e., ambient temperature) effect of dust emissions. Most of the plume dispersion characteristics in the ISCST3 model are derived from observations of hot plumes associated with typical exhaust stacks. The ISCST3 model does compensate for plume temperature; however, for ambient temperature plumes the model assumes negligible buoyancy and dispersion. Consequently, the ambient concentrations in cold plumes remain high even at significant distances from a source. In addition, ISCST3 impacts as currently modeled do not consider plume depletion due to particulate deposition. The modeled construction site impacts are not unusual in comparison to impacts predicted for most construction sites; construction sites that use good dust suppression techniques and low-emitting vehicles typically do not cause violations of air quality standards.

As the dispersion modeling indicates, the maximum construction impacts for PM₁₀/PM_{2.5} occur within the immediate vicinity of the construction activity and decrease rapidly with distance. The potential for cumulative air quality impacts from simultaneous construction activities from the Eastshore and RCEC projects is very low. When the CEC construction mitigation techniques are employed on both projects, any potential for impacts will be mitigated to levels of insignificance.

Cultural Resources

Data Request Responses 57S and 62S

Cultural Resources (57S, 62S)

Cultural Survey Results (supplemental)

57S. *Please survey the City of Hayward parcel to the east of the proposed transmission line route, the transmission line route between Depot Road and the City of Hayward parcel, the parking/laydown area to the west of the project site, the Aladdin Depot Partnership and the alternate electrical transmission line route and provide the survey results.*

Response: All of the remaining accessible areas were surveyed on April 2, 2007 by Douglas Davy. Areas surveyed included the previously unsurveyed portions of (1) the parking and laydown area on City of Hayward property north of Enterprise Avenue, (2) the previously unsurveyed area along the transmission line right-of-way also on the City of Hayward property north of Enterprise Avenue, and (3) a transmission tower base location along the proposed transmission line route north of the City parcel and south of Depot Road. These surveys are described in turn, below:

North-of-Enterprise Parking and Laydown Area – The parking and laydown area north of Enterprise Avenue (see Amendment Petition, Figure 2.4-1) is an inverted L-shaped parcel consisting of two parts: (1) a fenced, rectangular lot extending north from Enterprise and (2) an adjoining piece to the north and west that is part of the expansion area for the City's wastewater treatment plant. Part 1 was surveyed previously and this information was provided to the CEC Staff in the response to Data Request #21. At that time, Part 2 was inaccessible due to construction activity for expansion of the City's wastewater treatment plant. This part was surveyed on April 2, 2007. According to on-site construction personnel, this area had been grubbed and cleared before preparation for use as a laydown area for the wastewater treatment plant expansion project. A large pile of grubbed soil is located at the south end of the parcel. Native ground surface was visible in the center of the parcel, where it was in use for equipment laydown. This area was inspected between the equipment pieces for evidence of archaeological materials, prehistoric or historic-era artifacts, or anthropogenic soils. The central area is surrounded by a graveled loop driveway. To the west of the driveway loop and laydown area is a large berm consisting of imported fill for the biofilter basin. This berm marks the western boundary of the laydown area. No cultural resources were discovered during this survey.

Transmission right-of-way on the City Property – Most of the transmission right-of-way within the City's property north of Enterprise Avenue had been surveyed during the AFC proceeding because the RCEC's transmission line connected with the existing transmission corridor on this parcel. The portion previously unsurveyed is located on the north half of the City's property and was previously inaccessible due to wastewater treatment plant expansion project. This area was surveyed on April 2, 2007. Inspection of this area and discussions with construction program personnel indicated that nearly all of this area had been previously filled to a depth between 1 and 4 feet. This was apparent, as well, around the existing Pacific Gas and Electric Company (PG&E) 115 kV Grant-Eastshore transmission tower, the base of which is located in a fill basin about 4 feet deep. Additional fill (approximately 2 feet) has recently been added to the newly constructed biofilter basin berm, which is also in this area. Further north and west, the transmission line right-of-way

crosses over the newly decommissioned biofilter basin. Ground surface is not visible in this basin because it is filled with wastewater treatment plant sludge. No cultural resources were discovered during this survey.

Transmission right-of-way south of Depot Road— Portions of the transmission line right-of-way between the City parcel boundary north to Depot road were accessible for survey on April 2, 2007. Between the City parcel and Depot Road, however, there is only one transmission tower and the area adjacent to this tower is the most likely location of a transmission tower for the RCEC's gen-tie line. This tower is located on a parcel used for equipment storage, and was surrounded on one side by equipment. An access road runs adjacent to it on the east side. It is apparent from observing the difference between the elevation of the tower base compared with the surrounding area (about 1 foot) and the graveled surface that this area has been filled since construction of the transmission line. No cultural resources were discovered during this survey.

Other portions of this transmission right-of-way would be spanned by the transmission line and so would be unlikely to sustain subsurface impacts that might affect archaeological properties. These areas are located on parcels used for automobile salvage and large equipment storage and on which the ground surface is not visible in any case because of gravel fill.

Unsurveyed Areas— Two areas within the project area of potential effects remain unsurveyed. These are (1) the Aladdin Parcel, which is part of the project site, and (2) the alternative transmission line route. The Aladdin Parcel is currently an automobile salvage and equipment storage yard. The northern part of the lot is covered with wrecked automobiles with narrow lanes between them that are covered in gravel. The southern part of the lot is densely covered in buildings and sheds and various kinds of storage containers and equipment without vehicle lanes between them. Surveying these areas would be impractical at this time, because of the presence of the dense cover and gravel fill. This parcel will be cleared and grubbed for construction of the RCEC and it is recommended that it be surveyed at that time when it will be possible to examine the native ground surface.

The alternative transmission line route extends east from the RCEC parcel immediately north of the wastewater treatment plant to the Grant-Eastshore transmission corridor. Each of the six parcels that this route crosses are paved or graveled or filled and all are used for automobile salvage and/or equipment storage. For this reason, the native ground surface is not visible and archaeological survey is impractical. In addition, it is likely that only one transmission tower would be necessary somewhere along this alignment if this route were chosen for the transmission line. It is recommended that this area be surveyed at the time an area is cleared for construction of the tower base, if this occurs.

Historical Background Research (supplemental)

62S. *Please have an architectural historian or a historian, who specializes in industrial history (that meets the Secretary of Interior Standards), conduct sufficient historic background research to answer the questions asked in previous Data Request #27. The BSO forms must make a clear well-supported recommendation regarding eligibility of the three historic buildings to the CRHR. Please provide the updated BSO forms to staff.*

Response: Revised DPR-523 forms for the three buildings are provided in Attachment DR62S-1.

Attachment DR62S-1

Forms DPR-523

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary #
HRI #
Trinomial
NRHP Status Code

Other Listings
Review Code

Reviewer

Date

Page 1 of 6

*Resource Name or #: RCEC-1

P1. Other Identifier:

*P2. Location: ☐ Not for Publication ☒ Unrestricted
and (P2b and P2c or P2d. Attach a Location Map as necessary.)

*a. County: Hayward

*b. USGS 7.5' Quad: San Leandro Date: 1964 (1976)

c. Address: 3862 Depot Road City: Hayward, CA Zip: 94545

d. UTM: Zone: 10 ; 576,434 mE/ 4,165,788 mN (G.P.S.)

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate) Elevation:

From State Route 92 in Hayward, California, take Clawiter Avenue north for 0.72 miles to Depot Road. Turn west on Depot Road and travel 0.79 miles to 3862 Depot Road. Turn south down a narrow lane at a sign that says "All Good Pallets" that extends for 620 feet. The small shed-like structure immediately in front of you when you reach the end of the lane is the property.

*P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

This garage-like structure has a simple gable roof, board-and-batten siding supplemented by corrugated metal in places, and a sliding door that opens the entire front. The roofing material is corrugated metal. There is a small lean-to shed on the southwest side. There is a large window in the northeast wall. The building measures 45 x 30 feet, not including the lean-to, which measures 15 x 10 feet. This structure appears as part of a farmstead on a 1939 aerial photograph.

*P3b. Resource Attributes: (List attributes and codes)

*P4. Resources Present: ☒ Building ☐ Structure ☐ Object ☐ Site ☐ District ☐ Element of District ☐ Other (Isolates, etc.)

P5a. Photo or Drawing (Photo required for buildings, structures, and objects.)



P5b. Description of Photo: (View, date, accession #)
View of the northeast and northwest elevations

*P6. Date Constructed/Age and

Sources: ☒ Historic

☐ Prehistoric ☐ Both

*P7. Owner and Address:

Jon and Margaret Eash

*P8. Recorded by: (Name, affiliation, and address)

Jessica Feldman, Doug Davy,
CH2M HILL, 2485 Natomas Park
Drive, Suite 600
Sacramento, CA 95833

*P9. Date Recorded: October 5,
2006

*P10. Survey Type: (Describe)
Intensive pedestrian survey and
architectural reconnaissance

*P11. Report Citation: (Cite survey report and other sources, or enter "none). Russell City Energy Center (01-AFC-07) Amendment No. 1. Submitted to the California Energy Commission. Submitted by Russell City Energy Company, LLC. November 17, 2006.

*Attachments: ☐ NONE ☒ Location Map ☒ Sketch Map ☒ Continuation Sheet ☒ Building, Structure, and Object Record
☐ Archaeological Record ☐ District Record ☐ Linear Feature Record ☐ Milling Station Record ☐ Rock Art Record
☐ Artifact Record ☐ Photograph Record ☐ Other (List):

DPR 523A (1/95)

*Required information

BUILDING, STRUCTURE, AND OBJECT RECORD

Page 2 of 6

*NRHP Status Code 6Z

*Resource Name or # (Assigned by recorder) RCEC-1

B1. Historic Name: None

B2. Common Name: Garage at 3862 Depot Road, Hayward

B3. Original Use: Unknown

B4. Present Use: Garage

*B5. Architectural Style: Other - Garage

*B6. Construction History: (Construction date, alterations, and date of alterations)

The actual date of construction for this building is unknown; it appears on an aerial map of the region in 1939.

*B7. Moved? ☒ No ☐ Yes ☐ Unknown Date:

Original Location:

*B8. Related Features:

RCEC-2, RCEC-3

B9a. Architect: Unknown

b. Builder: Unknown

*B10. Significance: Theme: Light Industrial Development

Area: Hayward

Period of Significance: N/A

Property Type: Light Industrial

Applicable Criteria: N/A

(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

The subject property is located west of the City of Hayward. Formerly unincorporated Alameda County, this area formed the western portion of the former Eden Township and was in the vicinity of the Mt. Eden community beginning in the 1860s. The subject parcel was identified in 1897 and 1898 Assessor Maps as being owned by Mrs. Mary (Gading) Clawiter. Mrs. Clawiter was the widow of Edward Clawiter, who came to the Hayward area in 1854. Edward Clawiter came from Germany and was a farmer according to the 1878 Atlas of Alameda County. E. Clawiter is mentioned as a salt-harvester, who came to the area in 1884 and opened a mercantile shop in the nearby community of Alvarado (Sandoval, 1988). He later sold his store and bought 500 acres outside of Mt. Eden (Sandoval, 1988), presumably the subject parcel. His son, Edward H. (E.H.) owned a grain warehouse in town. Mary Clawiter, nee Gading, was most likely related to Justis Gading and Nicholas Gading, who both owned property south of the Clawiter parcel. The Gading brothers were also from Germany and arrived in the Mt. Eden area in the late 1850s. According to Sandoval, the Clawiters were members of the Mt. Eden Union Church; Mr. E. Clawiter was a board member and his son E.H. Clawiter would later be a trustee of the Church. The younger Clawiter was also part of the Mt. Eden Cemetery Board of Directors. They do not appear to have played a significant role in the founding of Eden Township, the City of Hayward or the community of Mt. Eden. Clawiter Boulevard, which crosses Depot Road on a north-south axis approximately 1 mile east from the subject parcel, is clearly named for the family. The road crosses Depot Road near the railroad tracks, which bisected part of the original Clawiter property in the late nineteenth century.

(See continuation sheets)

B11. Additional Resource Attributes: (List attributes and codes)

*B12. References:

LFR Levine-Fricke, "Phase I Environmental Site Assessment, 3862 and 3878 Depot Road, Hayward, California," December 2, 2004.

Historical Aerial Maps (1939, 1946, 1958, 1965, 1974, 1982, 1993, 1998)

Historical Topographical Maps (1899, 1948, 1959, 1968, 1973, 1980, 1993)

B13. Remarks:

*B14. Evaluator: Jessica B. Feldman

*Date of Evaluation: January 15, 2007

(This space reserved for official comments.)

(Sketch Map with north arrow required.)

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
CONTINUATION SHEET

Primary #
HRI#
Trinomial

Page 3 of 6

*Resource Name or # (Assigned by recorder) RCEC-1

*Recorded by: Jessica Feldman, CH2M HILL

*Date: 10/05/06

☒ Continuation

☐ Update

B10. Significance: The elder Edward Clawiter died in 1884, followed by his wife in 1906. At the turn of the century, the portion of Mrs. Clawiter's property located on the east side of the parcel was deeded to her son, E.H. Clawiter. The real estate and personal property value of the parcel does not indicate that there were any structures at the subject parcel at the turn of the century. As noted in the Assessor Map (1902), the original 500 acres had been split and/or subdivided; Mrs. Clawiter's existing property was 77 acres in size, with a value of \$2,300. The 50 acres held by E.H. Clawiter's was valued at \$4,100 with a personal property value of \$525. This would indicate that there were structures east of the subject parcel in 1902.

According to Sandoval (p. 149), Ben Eden, a native of Germany, and his wife Eva moved into the Clawiter house (location not given), which had come up for lease in the late 1870s. Mr. Eden came to the area in the 1860s, after a period of service as a first mate on a passenger boat between New Orleans and California. He worked for a while for another local farmer, first as a wagon driver and later as a farm manager. The Edens apparently resided at the Clawiter house, beginning in 1878, farming and harvesting salt, until Mr. Eden passed away in 1899. The community of Mt. Eden was not named for this family; the Eden family does not appear to have played a significant role in the founding of the community of Mt. Eden, although their grandson was a prominent local farmer in the twentieth century for whom a local school was named.

The brief history of the Eden family shows them residing in the Clawiter home and farming the Clawiter property between 1878 and 1899. It is unclear where the Clawiter family resided. The subject parcel, in 1902, showed no improvement; therefore, the existing structures at 3862 Depot Road were not yet constructed. The Clawiter house and associated structures were most likely located to the east of the subject parcel, on the property owned by E.H. Clawiter. There is no evidence that between 1878 and 1899 any member of the Clawiter family resided at, or farmed at, the former Clawiter property on Depot Road. Furthermore, the Clawiters were not shown to be living in Mt. Eden in 1910 (Sandoval, 1988).

The buildings appear to have been constructed between 1902 and 1939. The use of the property between those years is no known as there is no information from Assessor Maps, City Directories or other historical information. These buildings are unlikely to have been directly associated with the Clawiter family, as City Directories list no Clawiters in the Mt. Eden subsection of Hayward in 1925. E.H. Clawiter, Edward and Mary's son, does appear in the Mt. Eden subsection of the City Directory in 1934 and 1938, but no residential street address is provided. He is listed as a farmer. As noted previously, during the later nineteenth century, the Clawiter's leased their land and property to others. E.H. Clawiter was also noted as owning a grain warehouse in town, so his presence in the City Directory may have been related to his business in Mt. Eden and not the property on Depot Road.

In 1938, the City Directory listed three addresses on Depot Road; 8496 Depot Road was identified as the American Salt Company/Marsicano Salt Company. The Marsicano family owned most of the land between the Clawiter parcel and the bay, mainly south of Depot Road. Fabrizio Marsicano, who emigrated to San Francisco in the 1830s, started the American Salt Company, which was in operation until World War II (Sandoval, 1988). The salt industry was an integral part of the development of Mt. Eden (and Hayward) development. Salt production and harvesting began almost as soon as settlers began arriving in the area in the mid-nineteenth century, and the American Salt Company was formed in the 1880s as one of the large companies that consolidated small-scale salt harvesting by local farmers. At one time, there were as many as eight similar companies operating in the region, and locally, the most well-known was the Oliver (Brothers) Salt Company.

Persons are identified as residing on Depot Road in the 1946 and 1948 City Directories, but no street addresses are given; in 1948, Mr. Marsicano lived in Hayward, although still associated with the American Salt Company, which is listed as being at the end of Depot Road. The 1957 Assessor Map and City Directories from the late 1940s show that the property immediately to the west of 3862 Depot Road was owned and operated by American Salt Co./Albert Marsicano (later Mary Marsicano). By 1957, the former Clawiter property had been subdivided into several parcels. The owner of the property at that time, Leonorah Flores, was living in Hayward according to the City Directory, and the parcel to the east was owned by Edward B. Stone and his son. Mr. E.B. Stone was identified as someone who purchased poultry manure from a farm in Castro Valley and sold it in Salinas (Hall, 1997). Mt. Eden was annexed to the city of Hayward in 1958.

Based on this information, it seems unlikely that the property was used for residential purposes. Notations on the Assessor Map from 1902 show improvement value on E.H. Clawiter's parcel to the east of the subject parcel, but the larger Mary Clawiter property appeared to be unimproved at that time. It maybe that this parcel was dedicated for salt ponds or farming purposes. This would coincide to the years following the Eden's occupation of the property.

It is possible that this structure, which would have appeared on site between 1902 and 1939, was built as part of either a farming operation or as support structures for nearby salt production. The owners, the Clawiter family, appear to have leased the property to others, such as Ben Eden and his family between 1878 and 1899, but no other persons associated with this property have been identified. At some point, these structures may have been associated with American Salt Company, but their specific use and function are not known.

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
CONTINUATION SHEET

Primary #
HRI#
Trinomial

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*Resource Name or # (Assigned by recorder) RCEC-1

*Recorded by: Jessica Feldman, CH2M HILL

*Date: 10/05/06

☒ Continuation

☐ Update

Additionally, buildings have been added and removed at the site over the past sixty years and the use of the site before the 1960s cannot be precisely known, despite intensive research into the history of the subject property. It was at one time the site of a fertilizer plant. It's more recent history has been as a lumber storage yard, metal fabricating business, and pallet recycling facility. Therefore, it is difficult to gauge both a period of significance and a complete construction history. The architectural style of the structure could be classified as vernacular; it may have been associated with salt-production. This structure is probably not the American Salt Company plant office that was noted in 1954 at the end of Depot Road (Sandoval, 1988). Based on historical photographs at the local historical society and in Sandoval, this structure was clearly not a salt warehouse or a salt mill, which were very large buildings, often with several elevations and additions.

This style of garage is fairly common throughout the United States, as are the materials that were used to construct and adorn the individual structures. It is a variation of the barn style of construction. Vertical cladding is the most common siding for barns (Noble and Cleek, 1995). The salt-box-style roof (not a reference to its use) is also a very common roof shape. More importantly, based on drawings provided in the 1878 Atlas of Alameda County, the garage was constructed in a common manner that had been used as early as the mid-nineteenth century in the immediate area. Several small barns with similar configuration and construction were noted (specifically on Winton Avenue and also as part of the historic Mohr property east of the site on Depot Road) and a few large warehouse-size barns south of the San Mateo Bridge were also noted. According to Sandoval, the later are the remains of the Oliver Brothers salt works (p. 222).

As previously stated, no period of significance was determined, due in part to a lack of a definitive date of construction. It was probably constructed between 1902 and 1939. The original use of the garage is not known, and it is unclear if it was used for agricultural or salt-industry purposes. Since 1939, the primarily rural, agricultural and salt-production character of the immediate area and of Mt. Eden in general has changed. By 1946, the parcel to the east was being used by the Hayward Motorcycle club and contained an oval track for racing purposes. By the late 1950s, the farms across Depot Road had been removed. South of 3862 Depot Road the equalization ponds for the City of Hayward Water Pollution Control Facility had been constructed. By the early 1970s, the entire area north and south of Depot Road had been converted to commercial and industrial uses. The subject parcel went through major changes in the 1960s and the 1970s.

Due to these factors, the subject parcel has lost integrity of setting, feeling, and association which are important in determining its overall significance. Therefore, the buildings located on the subject parcel have also lost integrity of setting, feeling and association. The garage at 3862 Depot Road is not specifically associated with any one person or with a particular function, and it does not appear to be the work of a master. There are no known persons of significance associated with this building, and there is no evidence that any events that have importance on a local, state, or Federal level occurred here.

B12. References

Alameda County Agriculture Photo Album (Hayward Area Historical Society stacks).

Alameda County Assessor Maps 1897, 1898, 1902, 1957.

Alameda County Board of Supervisors. Directory of Manufacturers and Wholesalers. Oakland, CA, 1955.

Hall, Harwood L. Eden Township: Its Agriculture. Hayward Area Historical Society, Hayward, CA, 1997.

Hayward Area Historic inventory. Compiled by Julie Machado & Frank Goulart, July 1998 draft.

(Hayward) Historical Resources Inventory, 1974 (compiled and loosely bound).

Mt. Eden Photo Album (Hayward Area Historical Society stacks).

Noble, Allen G. and Richard K. Cleek. The Old Barn Book. Rutgers University Press: New Brunswick, NJ, 1995.

Phelps, Robert and the Hayward Area Historical Society. Early Hayward. Arcadia Publishing: Charleston, SC, 2004.

Sandoval, John S. Mt. Eden, Cradle of the Salt Industry in California. Mt. Eden Historical Publishers: Hayward, CA, 1988.

Polk's Hayward Directory. R.L. Polk & Company: San Francisco, CA: 1925-1926, 1951, 1952, 1964, 1965, 1967

Polk's Hayward and San Leandro City Directory. R.L. Polk & Company: San Francisco, CA: 1934, 1938, 1946, 1948

Shaffer, Harry E. A Garden Grows in Eden, The Centennial Story of San Leandro. San Leandro Historical-Centennial Committee: San Leandro, CA, 1972.

Thompson & West. Official and Historical Atlas Map of Alameda County, 1878. Valley Publishers: Fresno, CA, 1976 (reprint).

Eden Writers. Hayward...the First 100 Years. Color Art Press: Oakland, CA, 1975.

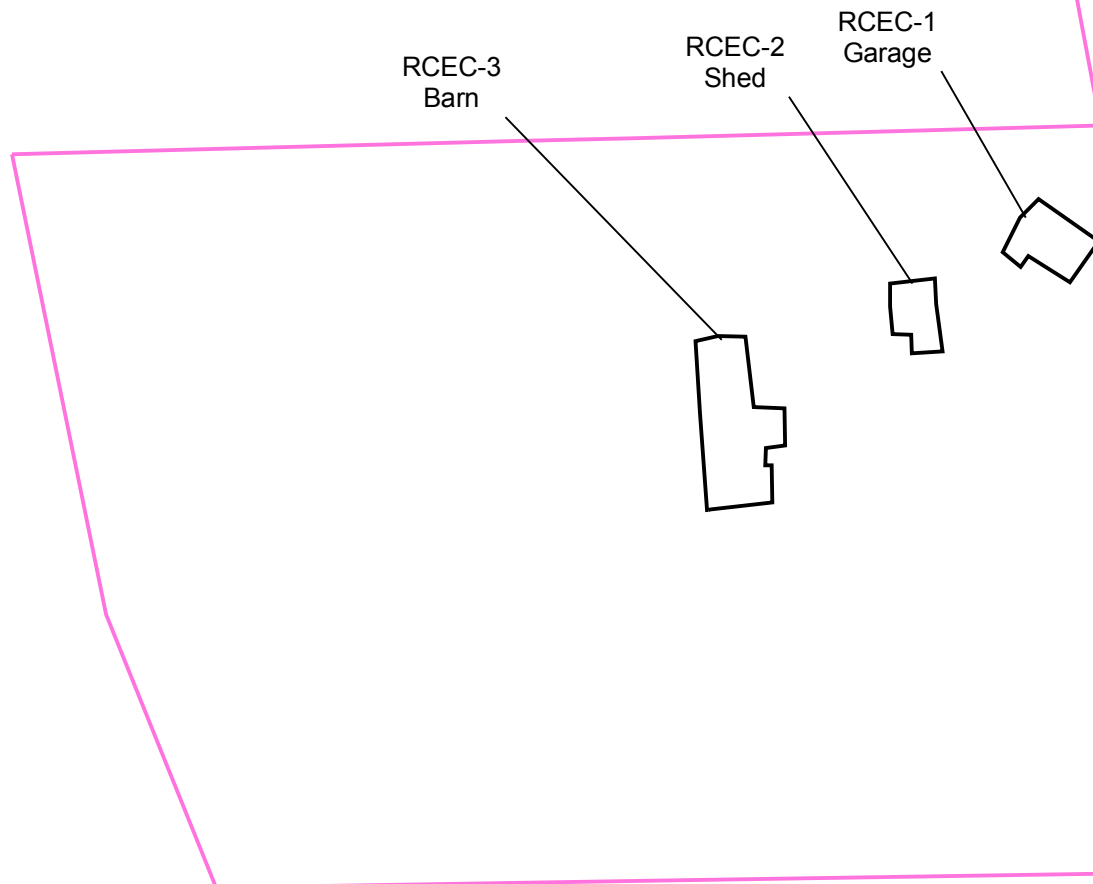
SKETCH MAP

Resource Name:



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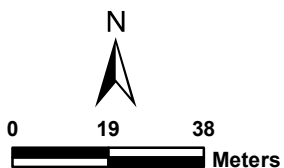
Drawn by: Mike Haskell

Date of Map: 1/16/07



LEGEND

-  Parcel # 439-0070-009
-  Building Locations



State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
LOCATION MAP

Primary #
HRI#
Trinomial

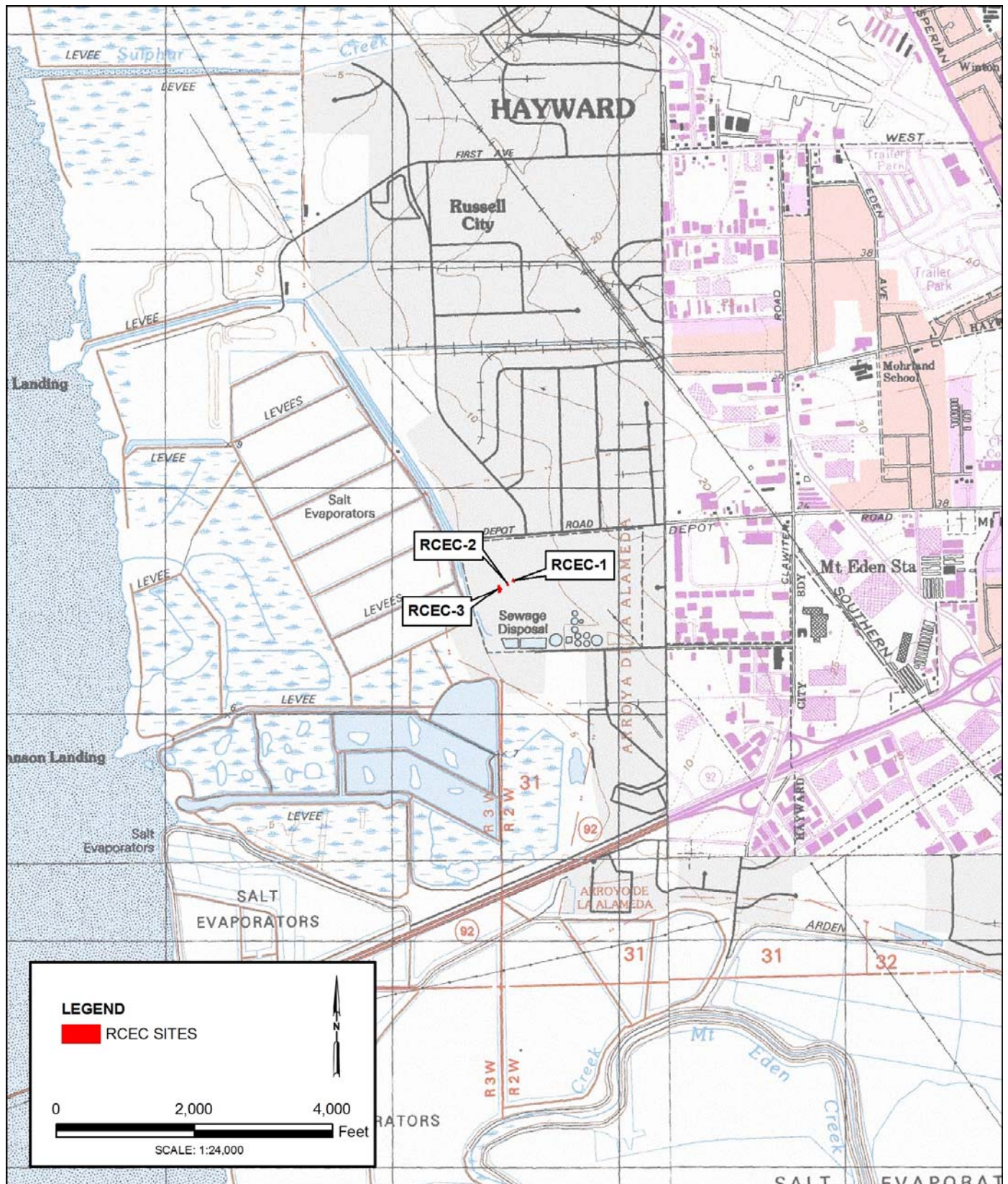
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*Resource Name or #: RCEC-1

*Map Name: San Leandro 7.5' topographic quadrangle

*Scale: 1:24,000

*Date of Map: 1964 (1976)



State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary #
HRI #
Trinomial
NRHP Status Code

Other Listings
Review Code

Reviewer

Date

Page 1 of 6

*Resource Name or #: RCEC-2

P1. Other Identifier:

*P2. Location: ☐ Not for Publication ☒ Unrestricted
(and P2b and P2c or P2d. Attach a Location Map as necessary.)

*a. County: Hayward

*b. USGS 7.5' Quad: San Leandro Date: 1964 (1976)

c. Address: 3862 Depot Road City: Hayward, CA Zip: 94545

d. UTM: Zone: 10 ; 576,408 mE/ 4,165,773 mN (G.P.S.)

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate) Elevation:

From State Route 92 in Hayward, California, take Clawiter Avenue north for 0.72 miles to Depot Road. Turn west on Depot Road and travel 0.79 miles to 3862 Depot Road. Turn south down a narrow lane at a sign that says "All Good Pallets" that extends for 620 feet. The small shed-like structure immediately to the right of you when you reach the end of the lane is the property.

*P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

This structure also has a simple gable-roof, board and batten siding and corrugated metal roofing. It has a two entry doors and one window, and a small lean-to shed on the south side. It measures 30 x 30 feet, not including the lean-to, which measures 20 x 10 feet. This property is seen as part of a complex, probably a farmstead, on the 1939 aerial photograph.

*P3b. Resource Attributes: (List attributes and codes)

*P4. Resources Present: ☒ Building ☐ Structure ☐ Object ☐ Site ☐ District ☐ Element of District ☐ Other (Isolates, etc.)

P5a. Photo or Drawing (Photo required for buildings, structures, and objects.)



P5b. Description of Photo: (View, date, accession #)
View of the east elevation

*P6. Date Constructed/Age and Sources: ☒ Historic
☐ Prehistoric ☐ Both

*P7. Owner and Address:
Jon and Margaret Eash

*P8. Recorded by: (Name, affiliation, and address)
Jessica Feldman, Doug Davy,
CH2M HILL, 2485 Natomas Park
Drive, Suite 600
Sacramento, CA 95833

*P9. Date Recorded: October 5, 2006

*P10. Survey Type: (Describe)
Intensive pedestrian survey and
architectural reconnaissance

*P11. Report Citation: (Cite survey report and other sources, or enter "none"). Russell City Energy Center (01-AFC-07) Amendment No. 1. Submitted to the California Energy Commission. Submitted by Russell City Energy Company, LLC. November 17, 2006.

*Attachments: ☐ NONE ☒ Location Map ☒ Sketch Map ☒ Continuation Sheet ☒ Building, Structure, and Object Record
☐ Archaeological Record ☐ District Record ☐ Linear Feature Record ☐ Milling Station Record ☐ Rock Art Record
☐ Artifact Record ☐ Photograph Record ☐ Other (List):

DPR 523A (1/95)

*Required information

BUILDING, STRUCTURE, AND OBJECT RECORD

Page 2 of 6

*NRHP Status Code 6Z

*Resource Name or # (Assigned by recorder) RCEC-2

B1. Historic Name: None

B2. Common Name: Shed at 3862 Depot Road, Hayward

B3. Original Use: Unknown

B4. Present Use: Shed

*B5. Architectural Style: Other - Shed

*B6. Construction History: (Construction date, alterations, and date of alterations)

The actual date of construction for this building is unknown; it appears on an aerial map of the region in 1939.

*B7. Moved? ☒ No ☐ Yes ☐ Unknown Date:

Original Location:

*B8. Related Features:

RCEC-1, RCEC-3

B9a. Architect: Unknown

b. Builder: Unknown

*B10. Significance: Theme: Light Industrial Development

Area: Hayward

Period of Significance: N/A

Property Type: Light Industrial

Applicable Criteria: N/A

(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

The subject property is located west of the City of Hayward. Formerly unincorporated Alameda County, this area formed the western portion of the former Eden Township and was in the vicinity of the Mt. Eden community beginning in the 1860s. The subject parcel was identified in 1897 and 1898 Assessor Maps as being owned by Mrs. Mary (Gading) Clawiter. Mrs. Clawiter was the widow of Edward Clawiter, who came to the Hayward area in 1854. Edward Clawiter came from Germany and was a farmer according to the 1878 Atlas of Alameda County. E. Clawiter is mentioned as a salt-harvester, who came to the area in 1884 and opened a mercantile shop in the nearby community of Alvarado (Sandoval, 1988). He later sold his store and bought 500 acres outside of Mt. Eden (Sandoval, 1988), presumably the subject parcel. His son, Edward H. (E.H.) owned a grain warehouse in town. Mary Clawiter, nee Gading, was most likely related to Justis Gading and Nicholas Gading, who both owned property south of the Clawiter parcel. The Gading brothers were also from Germany and arrived in the Mt. Eden area in the late 1850s. According to Sandoval, the Clawiters were members of the Mt. Eden Union Church; Mr. E. Clawiter was a board member and his son E.H. Clawiter would later be a trustee of the Church. The younger Clawiter was also part of the Mt. Eden Cemetery Board of Directors. They do not appear to have played a significant role in the founding of Eden Township, the City of Hayward or the community of Mt. Eden. Clawiter Boulevard, which crosses Depot Road on a north-south axis approximately 1 mile east from the subject parcel, is clearly named for the family. The road crosses Depot Road near the railroad tracks, which bisected part of the original Clawiter property in the late nineteenth century.

(See continuation sheets)

B11. Additional Resource Attributes: (List attributes and codes)

*B12. References:

LFR Levine-Fricke, "Phase I Environmental Site Assessment, 3862 and 3878 Depot Road, Hayward, California," December 2, 2004.

Historical Aerial Maps (1939, 1946, 1958, 1965, 1974, 1982, 1993, 1998)

Historical Topographical Maps (1899, 1948, 1959, 1968, 1973, 1980, 1993)

B13. Remarks:

*B14. Evaluator: Jessica B. Feldman

*Date of Evaluation: January 15, 2007

(This space reserved for official comments.)

(Sketch Map with north arrow required.)

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
CONTINUATION SHEET

Primary #
HRI#
Trinomial

Page 3 of 6

*Resource Name or # (Assigned by recorder) RCEC-2

*Recorded by: Doug Davy, CH2M HILL

*Date: 10/05/06

☒ Continuation

☐ Update

B10. Significance: The elder Edward Clawiter died in 1884, followed by his wife in 1906. At the turn of the century, the portion of Mrs. Clawiter's property located on the east side of the parcel was deeded to her son, E.H. Clawiter. The real estate and personal property value of the parcel does not indicate that there were any structures at the subject parcel at the turn of the century. According to the 1902 Assessor Map, the property was 77 acres in size, with a value of \$2,300. The 50 acres held by E.H. Clawiter's was valued at \$4,100 with a personal property value of \$525. This would indicate that there were structures east of the subject parcel in 1902.

According to Sandoval (p. 149), Ben Eden, a native of Germany, and his wife Eva moved into the Clawiter house (location not given), which had come up for lease in the late 1870s. Mr. Eden came to the area in the 1860s, after a period of service as a first mate on a passenger boat between New Orleans and California. He worked for a while for another local farmer, first as a wagon driver and later as a farm manager. The Edens apparently resided at the Clawiter house, beginning in 1878, farming and harvesting salt, until Mr. Eden passed away in 1899. The community of Mt. Eden was not named for this family; the Eden family does not appear to have played a significant role in the founding of the community of Mt. Eden, although their grandson was a prominent local farmer in the twentieth century for whom a local school was named.

The brief history of the Eden family shows them residing in the Clawiter home and farming the Clawiter property between 1878 and 1899. It is unclear where the Clawiter family resided. The subject parcel, in 1902, showed no improvement; therefore, the existing structures at 3862 Depot Road were not yet constructed. The Clawiter house and associated structures were most likely located to the east of the subject parcel, on the property owned by E.H. Clawiter. There is no evidence that between 1878 and 1899 any member of the Clawiter family resided at, or farmed at, the former Clawiter property on Depot Road. Furthermore, the Clawiters were not shown to be living in Mt. Eden in 1910 (Sandoval, 1988).

The buildings appear to have been constructed between 1902 and 1939. The use of the property between those years is no known as there is no information from Assessor Maps, City Directories or other historical information. These buildings are unlikely to have been directly associated with the Clawiter family, as City Directories list no Clawiters in the Mt. Eden subsection of Hayward in 1925. E.H. Clawiter, Edward and Mary's son, does appear in the Mt. Eden subsection of the City Directory in 1934 and 1938, but no residential street address is provided. He is listed as a farmer. As noted previously, during the later nineteenth century, the Clawiter's leased their land and property to others. E.H. Clawiter was also noted as owning a grain warehouse in town, so his presence in the City Directory may have been related to his business in Mt. Eden and not the property on Depot Road.

In 1938, the City Directory listed three addresses on Depot Road; 8496 Depot Road was identified as the American Salt Company/Marsicano Salt Company. The Marsicano family owned most of the land between the Clawiter parcel and the bay, mainly south of Depot Road. Fabrizio Marsicano, who emigrated to San Francisco in the 1830s, started the American Salt Company, which was in operation until World War II (Sandoval, 1988). The salt industry was an integral part of the development of Mt. Eden (and Hayward) development. Salt production and harvesting began almost as soon as settlers began arriving in the area in the mid-nineteenth century, and the American Salt Company was formed in the 1880s as one of the large companies that consolidated small-scale salt harvesting by local farmers. At one time, there were as many as eight similar companies operating in the region, and locally, the most well-known was the Oliver (Brothers) Salt Company.

Persons are identified as residing on Depot Road in the 1946 and 1948 City Directories, but no street addresses are given; in 1948, Mr. Marsicano is living in Hayward, although still associated with the American Salt Company, which is listed as being at the end of Depot Road. The 1957 Assessor Map and City Directories from the late 1940s show that the property immediately to the west of 3862 Depot Road was owned and operated by American Salt Co./Albert Marsicano (later Mary Marsicano). By 1957, the former Clawiter property had been subdivided into several parcels. The owner of the property at that time, Leonorah Flores, was living in Hayward according to the City Directory, and the parcel to the east was owned by Edward B. Stone and his son. Mr. E.B. Stone was identified as someone who purchased poultry manure from a farm in Castro Valley and sold it in Salinas (Hall, 1997). Mt. Eden was annexed to the city of Hayward in 1958.

Based on this information, it seems unlikely that the property was used for residential purposes. Notations on the Assessor Map from 1902 show improvement value on E.H. Clawiter's parcel to the east of the subject parcel, but the larger Mary Clawiter property appeared to be unimproved at that time. It maybe that this parcel was dedicated for salt ponds or farming purposes. This would coincide to the years following the Eden's occupation of the property.

It is possible that the shed, which would have appeared on site between 1902 and 1939, was built as part of either a farming operation or as support structures for nearby salt production. The owners, the Clawiter family, appear to have leased the property to others, such as Ben Eden and his family between 1878 and 1899, but no other persons associated with this property have been identified. At some point, these structures may have been associated with American Salt Company, but their specific use and function are not known.

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
CONTINUATION SHEET

Primary #
HRI#
Trinomial

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*Resource Name or # (Assigned by recorder) RCEC-2

*Recorded by: Doug Davy, CH2M HILL

*Date: 10/05/06

☒ Continuation

☐ Update

Additionally, buildings have been added and removed at the site over the past sixty years and the use of the site before the 1960s cannot be precisely known, despite intensive research into the history of the subject property. It was at one time the site of a fertilizer plant. It's more recent history has been as a lumber storage yard, metal fabricating business, and pallet recycling facility. Therefore, it is difficult to gauge both a period of significance and a complete construction history. The architectural style of the structure could be classified as vernacular; it may have been associated with salt-production. This structure is probably not the American Salt Company plant office that was noted in 1954 at the end of Depot Road (Sandoval, 1988). Based on historical photographs at the local historical society and in Sandoval, this structure was clearly not a salt warehouse or a salt mill, which were very large buildings, often with several elevations and additions.

This style of shed, a variation of barn construction, is fairly common throughout the United States, as are the materials that were used to construct and adorn the individual structures. Vertical cladding is the most common siding for barns (Noble and Cleek, 1995). The salt-box-style roof (which is not a reference to its past function or use) is also a very common roof shape. More importantly, based on drawings provided in the 1878 Atlas of Alameda County, the shed was constructed in a common manner that had been used as early as the mid-nineteenth century in the immediate area. Several small barns or sheds with similar configuration and construction were noted (specifically on Winton Avenue and also as part of the historic Mohr property east of the site on Depot Road) and a few large warehouse-size barns south of the San Mateo Bridge were also noted. According to Sandoval, the later are the remains of the Oliver Brothers salt works (p. 222).

As previously stated, no period of significance was determined, due in part to a lack of a definitive date of construction. It was probably constructed between 1902 and 1939. The original use of this structure can not be determined, and it is unclear if it was used for agricultural or salt-industry purposes. Since 1939, the primarily rural, agricultural and salt-production character of the immediate area and of Mt. Eden in general has changed. By 1946, the parcel to the east was being used by the Hayward Motorcycle club and contained an oval track for racing purposes. By the late 1950s, the farms across Depot Road had been removed. South of 3862 Depot Road the equalization ponds for the City of Hayward Water Pollution Control Facility had been constructed. By the early 1970s, the entire area north and south of Depot Road had been converted to commercial and industrial uses. The subject parcel went through major changes in the 1960s and the 1970s.

Due to these factors, the subject parcel has lost integrity of setting, feeling, and association which are important in determining its overall significance. Therefore, the buildings located on the subject parcel have also lost integrity of setting, feeling and association. The shed at 3862 Depot Road is not specifically associated with any one person or with a particular function, and it does not appear to be the work of a master. There are no known persons of significance associated with this building, and there is no evidence that any events that have importance on a local, state, or Federal level occurred here.

B12. References

Alameda County Agriculture Photo Album (Hayward Area Historical Society stacks).

Alameda County Assessor Maps 1897, 1898, 1902, 1957.

Alameda County Board of Supervisors. Directory of Manufacturers and Wholesalers. Oakland, CA, 1955.

Hall, Harwood L. Eden Township: Its Agriculture. Hayward Area Historical Society, Hayward, CA, 1997.

Hayward Area Historic inventory. Compiled by Julie Machado & Frank Goulart, July 1998 draft.

(Hayward) Historical Resources Inventory, 1974 (compiled and loosely bound).

Mt. Eden Photo Album (Hayward Area Historical Society stacks).

Noble, Allen G. and Richard K. Cleek. The Old Barn Book. Rutgers University Press: New Brunswick, NJ, 1995.

Phelps, Robert and the Hayward Area Historical Society. Early Hayward. Arcadia Publishing: Charleston, SC, 2004.

Sandoval, John S. Mt. Eden, Cradle of the Salt Industry in California. Mt. Eden Historical Publishers: Hayward, CA, 1988.

Polk's Hayward Directory. R.L. Polk & Company: San Francisco, CA: 1925-1926, 1951, 1952, 1964, 1965, 1967

Polk's Hayward and San Leandro City Directory. R.L. Polk & Company: San Francisco, CA: 1934, 1938, 1946, 1948

Shaffer, Harry E. A Garden Grows in Eden, The Centennial Story of San Leandro. San Leandro Historical-Centennial Committee: San Leandro, CA, 1972.

Thompson & West. Official and Historical Atlas Map of Alameda County, 1878. Valley Publishers: Fresno, CA, 1976 (reprint).

Eden Writers. Hayward...the First 100 Years. Color Art Press: Oakland, CA, 1975.

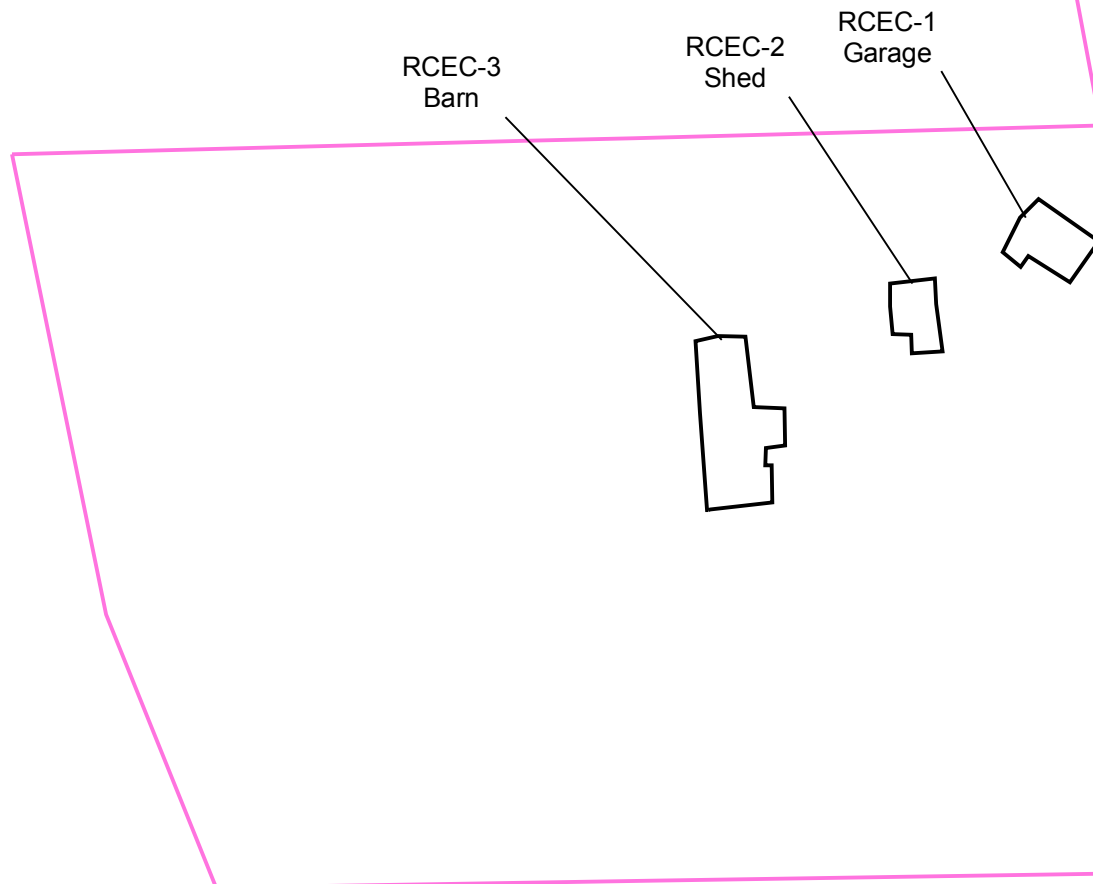
SKETCH MAP

Resource Name:



Page 5 of 6

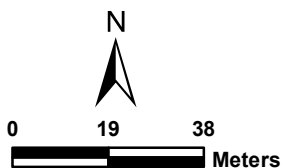
Drawn by: Mike Haskell

Date of Map: 1/16/07



LEGEND

-  Parcel # 439-0070-009
-  Building Locations



State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
LOCATION MAP

Primary #
HRI#
Trinomial

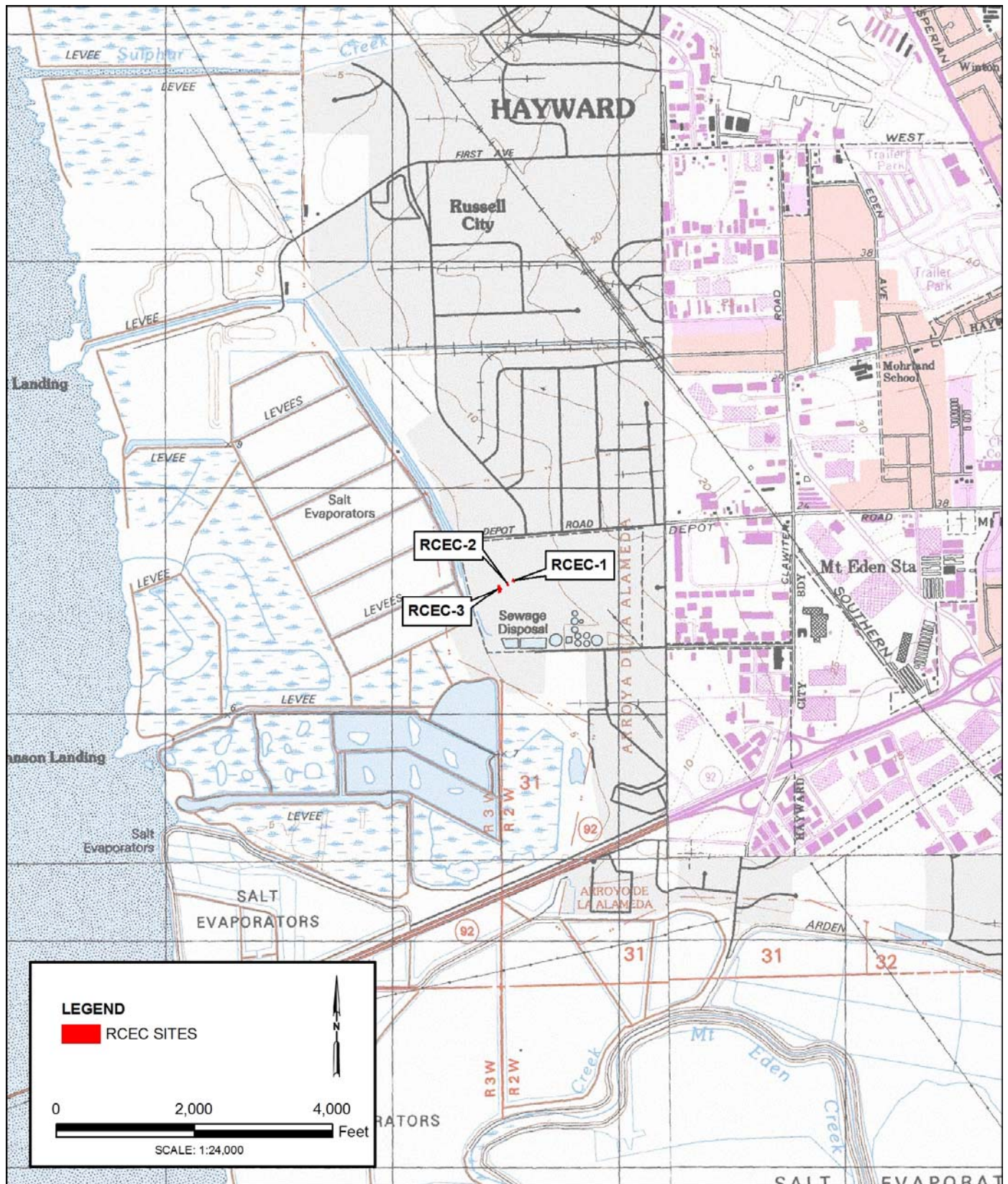
Page 6 of 6

*Resource Name or #: RCEC-2

*Map Name: San Leandro 7.5' topographic quadrangle

*Scale: 1:24,000

*Date of Map: 1964 (1976)



State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary #
HRI #
Trinomial
NRHP Status Code

Other Listings
Review Code

Reviewer

Date

Page 1 of 6

*Resource Name or #: RCEC-3

P1. Other Identifier:

*P2. Location: ☐ Not for Publication ☒ Unrestricted

*a. County: Hayward

and (P2b and P2c or P2d. Attach a Location Map as necessary.)

*b. USGS 7.5' Quad: San Leandro Date: 1964 (1976)

c. Address: 3862 Depot Road City: Hayward, CA Zip: 94545

d. UTM: Zone: 10 ; 576,372 mE/ 4,1657,51 mN (G.P.S.)

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate) Elevation:

From State Route 92 in Hayward, California, take Clawiter Avenue north for 0.72 miles to Depot Road. Turn west on Depot Road and travel 0.79 miles to 3862 Depot Road. Turn south down a narrow lane at a sign that says "All Good Pallets" that extends for 620 feet. At the end of the lane, turn right and go 200 feet to the west, past the larger, more recent building to the south. The property is the barn-line structure 80 south of the lane.

*P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

The foundation of this barn-like structure is elevated about 6 inches above the surrounding area, perhaps because of flooding risk. The structure has two parts: a larger two-story barn, and a smaller one-story shed. Together, the two buildings are 115 feet long. The smaller structure is 45 feet long and the large one is 70 feet long. They are the same width, at 30 feet, although the larger building has a 15-foot-wide awning on the east side. As with the other two buildings, they have board-and batten siding and corrugated metal roofing. The small building has a door on the east side and no windows. The larger building has small windows on the east and west and a door on the west side. Facing the south wall is a hopper apparatus for handling agricultural products of some kind. This apparatus extends through the floor of the second floor. The first floor has a receiving bin and a small conveyor apparatus leading to a large hopper on the second floor. A small conveyor extends from this hopper out the second floor opening, so that the article processed or stored here could be deposited in a truck or other container. This structure appears as part of a farmstead on a 1939 aerial photograph.

*P3b. Resource Attributes: (List attributes and codes)

*P4. Resources Present: ☒ Building ☐ Structure ☐ Object ☐ Site ☐ District ☐ Element of District ☐ Other (Isolates, etc.)

P5a. Photo or Drawing (Photo required for buildings, structures, and objects.)



P5b. Description of Photo: (View, date, accession #)
View of the east elevation

*P6. Date Constructed/Age and Sources: ☒ Historic
☐ Prehistoric ☐ Both

*P7. Owner and Address:
Jon and Margaret Eash

*P8. Recorded by: (Name, affiliation, and address)
Doug Davy, CH2M HILL, 2485
Natomas Park Drive, Suite 600
Sacramento, CA 95833

*P9. Date Recorded: October 5, 2006

*P10. Survey Type: (Describe)
Intensive pedestrian survey and architectural reconnaissance

*P11. Report Citation: (Cite survey report and other sources, or enter "none"). Russell City Energy Center

(01-AFC-07) Amendment No. 1. Submitted to the California Energy Commission. Submitted by Russell City Energy Company, LLC. November 17, 2006.

*Attachments: ☐ NONE ☒ Location Map ☒ Sketch Map ☒ Continuation Sheet ☒ Building, Structure, and Object Record
☐ Archaeological Record ☐ District Record ☐ Linear Feature Record ☐ Milling Station Record ☐ Rock Art Record
☐ Artifact Record ☐ Photograph Record ☐ Other (List):

BUILDING, STRUCTURE, AND OBJECT RECORD

Page 2 of 6

*NRHP Status Code 6Z

*Resource Name or # (Assigned by recorder) RCEC-3

B1. Historic Name:

B2. Common Name: Barn at 3862 Depot Road, Hayward

B3. Original Use: Unknown

B4. Present Use: Barn

*B5. Architectural Style: Other - Barn

*B6. Construction History: (Construction date, alterations, and date of alterations)

The actually date of construction for this building is unknown; it appears on an aerial map of the region in 1939. Between 1939 and 1946, an addition was built on the west side of the barn. This addition was removed before the 1965 aerial was taken.

*B7. Moved? ☒ No ☐ Yes ☐ Unknown Date:

Original Location:

*B8. Related Features:

RCEC-1, RCEC-2

B9a. Architect: Unknown

b. Builder: Unknown

*B10. Significance: Theme: Light Industrial Development

Area: Hayward

Period of Significance: N/A

Property Type:

Applicable Criteria: N/A

(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

The subject property is located west of the City of Hayward. Formerly unincorporated Alameda County, this area formed the western portion of the former Eden Township and was in the vicinity of the Mt. Eden community beginning in the 1860s. The subject parcel was identified in 1897 and 1898 Assessor Maps as being owned by Mrs. Mary (Gading) Clawiter. Mrs. Clawiter was the widow of Edward Clawiter, who came to the Hayward area in 1854. Edward Clawiter came from Germany and was a farmer according to the 1878 Atlas of Alameda County. E. Clawiter is mentioned as a salt-harvester, who came to the area in 1884 and opened a mercantile shop in the nearby community of Alvarado (Sandoval, 1988). He later sold his store and bought 500 acres outside of Mt. Eden (Sandoval, 1988), presumably the subject parcel. His son, Edward H. (E.H.) owned a grain warehouse in town. Mary Clawiter, nee Gading, was most likely related to Justis Gading and Nicholas Gading, who both owned property south of the Clawiter parcel. The Gading brothers were also from Germany and arrived in the Mt. Eden area in the late 1850s. According to Sandoval, the Clawiters were members of the Mt. Eden Union Church; Mr. E. Clawiter was a board member and his son E.H. Clawiter would later be a trustee of the Church. The younger Clawiter was also part of the Mt. Eden Cemetery Board of Directors. They do not appear to have played a significant role in the founding of Eden Township, the City of Hayward or the community of Mt. Eden. Clawiter Boulevard, which crosses Depot Road on a north-south axis approximately 1 mile east from the subject parcel, is clearly named for the family. The road crosses Depot Road near the railroad tracks, which bisected part of the original Clawiter property in the late nineteenth century.

(See continuation sheets)

B11. Additional Resource Attributes: (List attributes and codes)

*B12. References:

LFR Levine-Fricke, "Phase I Environmental Site Assessment, 3862 and 3878 Depot Road, Hayward, California," December 2, 2004.

Historical Aerial Maps (1939, 1946, 1958, 1965, 1974, 1982, 1993, 1998)

Historical Topographical Maps (1899, 1948, 1959, 1968, 1973, 1980, 1993)

B13. Remarks:

*B14. Evaluator: Jessica B. Feldman

*Date of Evaluation: January 15, 2007

(This space reserved for official comments.)

(Sketch Map with north arrow required.)

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
CONTINUATION SHEET

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Page 3 of 6

*Resource Name or # (Assigned by recorder) RCEC-3

*Recorded by: Jessica Feldman, CH2M HILL

*Date: 10/05/06

☒ Continuation

☐ Update

B10. Significance: The elder Edward Clawiter died in 1884, followed by his wife in 1906. At the turn of the century, the portion of Mrs. Clawiter's property located on the east side of the parcel was deeded to her son, E.H. Clawiter. The real estate and personal property value of the parcel does not indicate that there were any structures at the subject parcel at the turn of the century. According to the 1902 Assessor Map, Mrs. Clawiter's property, which was a portion of the original 500 acres, was 77 acres in size, with a value of \$2,300. The 50 acres held by E.H. Clawiter's was valued at \$4,100 with a personal property value of \$525. This would indicate that there were structures east of the subject parcel in 1902.

According to Sandoval (p. 149), Ben Eden, a native of Germany, and his wife Eva moved into the Clawiter house (location not given), which had come up for lease by the late 1870s. Mr. Eden came to the area in the 1860s, after a period of service as a first mate on a passenger boat between New Orleans and California. He worked for a while for another local farmer, first as a wagon driver and later as a farm manager. The Edens apparently resided at the Clawiter house, beginning in 1878, farming and harvesting salt, until Mr. Eden passed away in 1899. The community of Mt. Eden was not named for this family; the Eden family does not appear to have played a significant role in the founding of the community of Mt. Eden, although their grandson was a prominent local farmer in the twentieth century for whom a local school was named.

The brief history of the Eden family shows them residing in the Clawiter home and farming the Clawiter property between 1878 and 1899. It is unclear where the Clawiter family resided. The subject parcel, in 1902, showed no improvement; therefore, the existing structures at 3862 Depot Road were not yet constructed. The Clawiter house and associated structures were most likely located to the east of the subject parcel, on the property owned by E.H. Clawiter. There is no evidence that between 1878 and 1899 any member of the Clawiter family resided at, or farmed at, the former Clawiter property on Depot Road. Furthermore, the Clawiters were not shown to be living in Mt. Eden in 1910 (Sandoval, 1988).

The buildings appear to have been constructed between 1902 and 1939. The use of the property between those years is no known as there is no information from Assessor Maps, City Directories or other historical information. These buildings are unlikely to have been directly associated with the Clawiter family, as City Directories list no Clawiters in the Mt. Eden subsection of Hayward in 1925. E.H. Clawiter, Edward and Mary's son, does appear in the Mt. Eden subsection of the City Directory in 1934 and 1938, but no residential street address is provided. He is listed as a farmer. As noted previously, during the late nineteenth century, the Clawiter's leased their land and property to others. E.H. Clawiter was also noted as owning a grain warehouse in town, so his presence in the City Directory may have been related to his business in Mt. Eden and not the property on Depot Road.

In 1938, the City Directory listed three addresses on Depot Road; 8496 Depot Road was identified as the American Salt Company/Marsicano Salt Company. The Marsicano family owned most of the land between the Clawiter parcel and the bay, mainly south of Depot Road. Fabrizio Marsicano, who emigrated to San Francisco in the 1830s, started the American Salt Company, which was in operation until World War II (Sandoval, 1988). The salt industry was an integral part of the development of Mt. Eden (and Hayward) development. Salt production and harvesting began almost as soon as settlers began arriving in the area in the mid-nineteenth century, and the American Salt Company was formed in the 1880s as one of the large companies that consolidated small-scale salt harvesting by local farmers. At one time, there were as many as eight similar companies operating in the region, and locally, the most well-known was the Oliver (Brothers) Salt Company.

Persons are identified as residing on Depot Road in the 1946 and 1948 City Directories, but no street addresses are given; by 1948, Mr. Marsicano is living in Hayward, although still associated with the American Salt Company, which is listed as being at the end of Depot Road. The 1957 Assessor Map and City Directories from the late 1940s show that the property immediately to the west of 3862 Depot Road was owned and operated by American Salt Co./Albert Marsicano (later Mary Marsicano). By 1957, the former Clawiter property had been subdivided into several parcels. The owner of the property at that time, Leonorah Flores, was living in Hayward according to the City Directory, and the parcel to the east was owned by Edward B. Stone and his son. Mr. E.B. Stone was identified as someone who purchased poultry manure from a farm in Castro Valley and sold it in Salinas (Hall, 1997). Mt. Eden was annexed to the city of Hayward in 1958.

Based on this information, it seems unlikely that the property was used for residential purposes. Notations on the Assessor Map from 1902 show improvement value on E.H. Clawiter's parcel to the east of the subject parcel, but the larger Mary Clawiter property appeared to be unimproved at that time. It maybe that this parcel was dedicated for salt ponds or farming purposes. This would coincide to the years following the Eden's occupation of the property.

It is possible that the barn, which would have appeared on site between 1902 and 1939, was built as part of either a farming operation or as support structures for nearby salt production. The owners, the Clawiter family, appear to have leased the property to others, such as Ben Eden and his family between 1878 and 1899, but no other persons associated with this property have been identified. At some point, these structures may have been associated with American Salt Company, but their specific use and function are not known.

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
CONTINUATION SHEET

Primary #
HRI#
Trinomial

Page 4 of 6

*Resource Name or # (Assigned by recorder) RCEC-3

*Recorded by: Doug Davy, CH2M HILL

*Date: 10/05/06

☒ Continuation

☐ Update

Additionally, buildings have been added and removed at the site over the past sixty years and the use of the site before the 1960s cannot be precisely known, despite intensive research into the history of the subject property. It was at one time the site of a fertilizer plant. It's more recent history has been as a lumber storage yard, metal fabricating business, and pallet recycling facility. Therefore, it is difficult to gauge both a period of significance and a complete construction history. The architectural style of the structure could be classified as vernacular; it may have been associated with salt-production. This structure is unlikely to have been the American Salt Company plant office that was noted in 1954 at the end of Depot Road (Sandoval, 1988). Based on historical photographs at the local historical society and in Sandoval, this structure was clearly not a salt warehouse or a salt mill.

This style of barn is fairly common throughout the United States, as are the materials that were used to construct and adorn the individual structures. Vertical cladding is the most common siding for barns (Noble and Cleek, 1995). Based on drawings provided in the 1878 Atlas of Alameda County, the barn was constructed in a common manner that had been used as early as the mid-nineteenth century in the immediate area. Several small barns with similar configuration and construction were noted (specifically on Winton Avenue and also as part of the historic Mohr property east of the site on Depot Road) and a few large warehouse-size barns south of the San Mateo Bridge were also noted. According to Sandoval, the later are the remains of the Oliver Brothers salt works (p. 222).

As previously stated, no period of significance was determined, due in part the lack of a definitive date of construction. It was probably constructed between 1902 and 1939. The building appears to be intact; although for approximately 20 years, it was enlarged by an addition on the west façade. The original use of this structure is not known, and it is unclear if it was used for agricultural or salt-industry purposes. Since 1939, the primarily rural, agricultural and salt-production character of the immediate area and of Mt. Eden in general has changed. By 1946, the parcel to the east was being used by the Hayward Motorcycle club and contained an oval track for racing purposes. By the late 1950s, the farms across Depot Road had been removed. South of 3862 Depot Road the equalization ponds for the City of Hayward Water Pollution Control Facility had been constructed. By the early 1970s, the entire area north and south of Depot Road had been converted to commercial and industrial uses. The subject parcel went through major changes in the 1960s and the 1970s.

Due to these factors, the subject parcel appears to have lost integrity of setting, feeling, and association which are important in determining its overall significance. Therefore, the buildings located on the subject parcel have also lost integrity of setting, feeling and association. The barn at 3862 Depot Road is not specifically associated with any one person or with a particular function, and it does not appear to be the work of a master. There are no known persons of significance associated with this building, and there is no evidence that any events that have importance on a local, state, or Federal level occurred here.

B12. References

Alameda County Agriculture Photo Album (Hayward Area Historical Society stacks).

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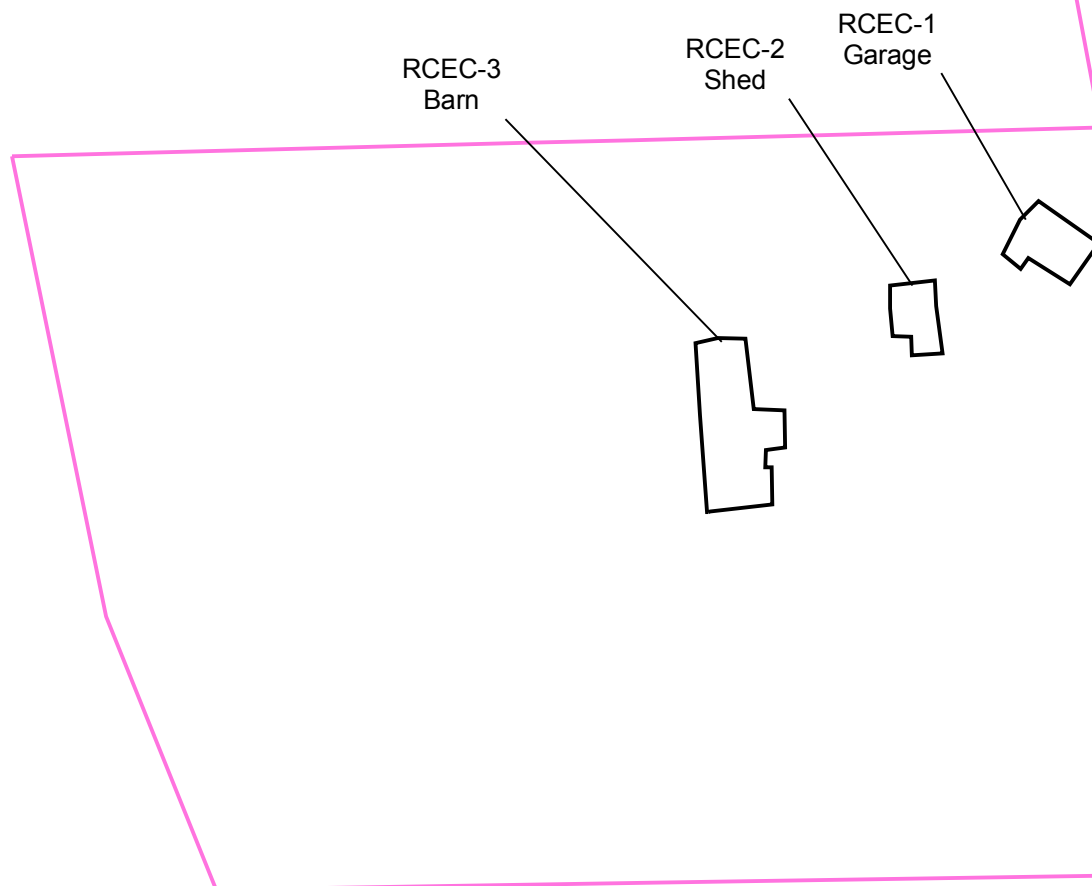
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Page 5 of 6

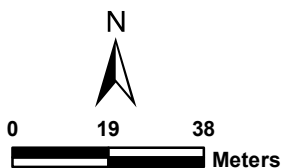
Drawn by: Mike Haskell

Date of Map: 1/16/07



LEGEND

-  Parcel # 439-0070-009
-  Building Locations



State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
LOCATION MAP

Primary #
HRI#
Trinomial

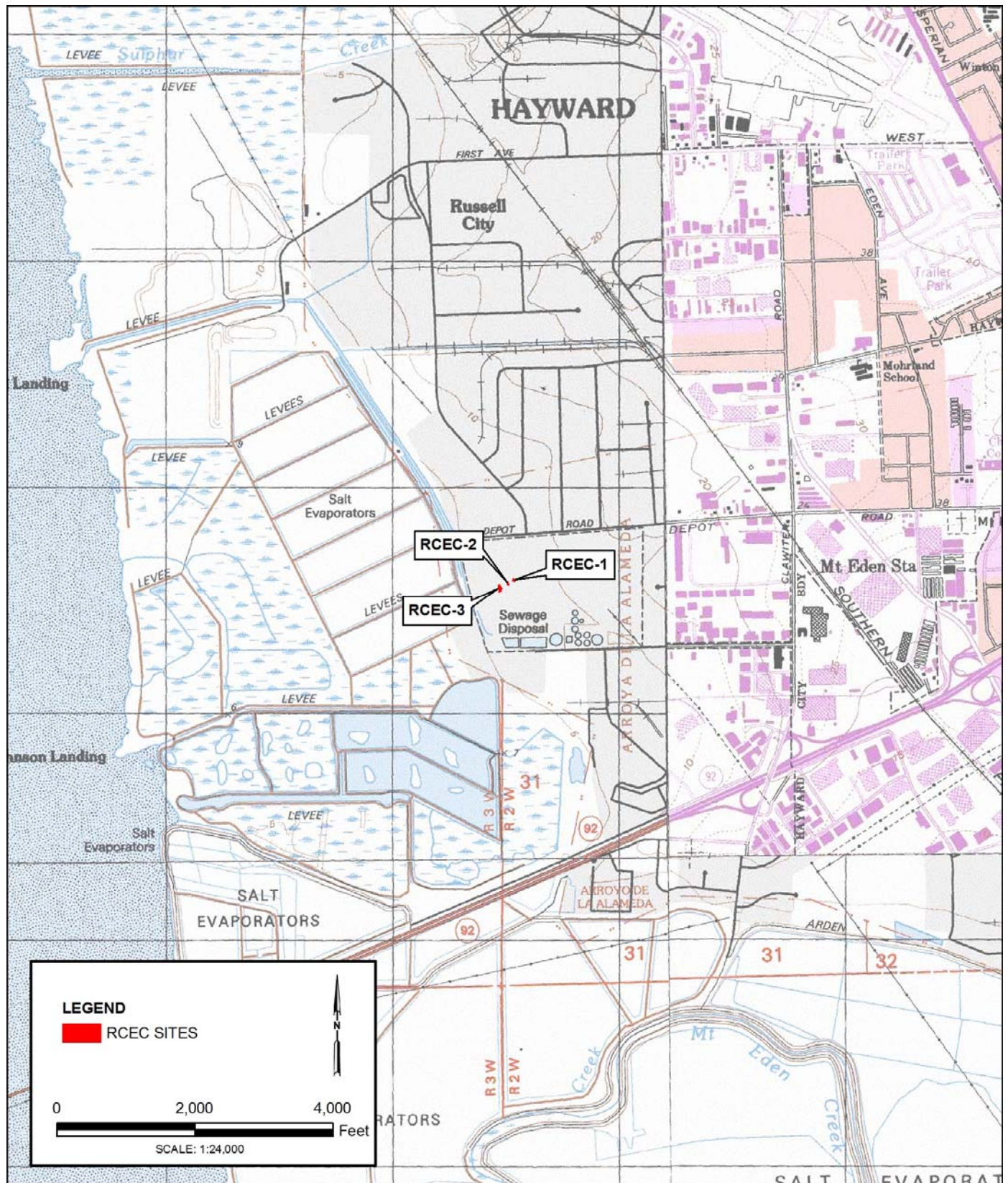
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*Resource Name or #:

*Map Name: San Leandro 7.5' topographic quadrangle

*Scale: 1:24,000

*Date of Map: 1964 (1976)



Traffic and Transportation

Workshop Query Responses 1-3

Traffic and Transportation (WSQ1-3)

Thermal plumes

WSQ-1 I can match the applicant's calculations and vertical velocity results for the Russell City stacks; however, there are a few issues. Most importantly the calculations need to match a worst case condition, which would be no higher than 40F. The cooling tower, if you remember, is specified to be visible plume free at 38F/80% RH so 40 F calm winds is a reasonable worst-case condition to model for clear plumes, while 293 K, or 68 F is most certainly not a worst case condition and it is likely higher than the average median temperature for the area. This issue reflects on both the cooling tower and to a lesser degree the HRSG exhaust calculations (where the cold weather HRSG exhaust conditions should be used).

Response: The plume vertical velocities would increase slightly for the stack temp/volumetric flow modeled if ambient temperatures were decreased from 68 degrees F to 40 degrees F (i.e., the height of the 4.3 m/s plume-averaged vertical velocity would increase from 478 feet above ground to 483 feet above ground for the merged 9-cell cooling tower plume case). This is not a significant difference, however. The spreadsheet calculation and modeling data have been submitted to Staff under separate cover on CD-ROM and will be provided to other parties on request.

WSQ-2 The cooling tower exhaust data does not seem to match the last set of wet/dry responses provided for this case, see attached. There is an earlier, or was it later, response that I only have as hard copy that was noted as Additional information items 175 to 218. Regardless we need to confirm current estimates for cooling tower exhaust conditions at 40F/80%RH for use with the Spillane method.

Response: If plume conditions (stack temp/volumetric flow) were revised to match the ambient condition selected, any changes in impacts would be similarly insignificant (changes in height of the 4.3 m/s plume-averaged vertical velocity).

WSQ-3 Using the same calculations that I used to match the applicant's results I cannot match the results for the example case provided in the referenced Best et. al. report (which is also attached). Therefore, appears that there may be an error in the applicant's application of the Spillane method; so, we need the applicant to provide explicit calculations that show their calculation method can be used to match the Best paper's calm wind velocity example values.

Response: There is not enough information presented in the Peter Best paper (Best, et al. 2003) to solve the illustrative example given in the same paper using the simple solution assumed in the Calpine analysis for calm conditions (i.e., plume diameter increases linearly with height). Since the illustrative example in the Peter Best paper presents results for non-calm wind speeds for comparison to results under calm conditions (to illustrate that plume-averaged vertical velocities are significantly reduced even under light wind speed conditions), it would be safe to assume that the authors have developed a model that was

applied to the illustrative example that uses more complex numerical and/or analytical solutions to the set of partial differential equations presented in the paper (i.e., the illustrative example uses a different solution to the equations than assumed in the Calpine analysis).

References Cited:

Best, P. et al. 2003. Aviation Safety and Buoyant Plumes. Presented at the Clean Air Conference, Newcastle, New South Wales, Australia. By Peter Best, Lena Jackson, Mark Kanowski of Katestone Environmental, Toowong, Queensland, Australia and Kevin Spillane of Bendigo, Victoria, Australia.

Reconductoring Project Impact Analysis

Data Request Responses 82-96

Reconductoring Project Impact Analysis (82-96)

Eastshore to Dumbarton Line

82. *The ownership, location, rating, and age of the line or substation/s;*

Response: PG&E is the owner of the Eastshore to Dumbarton 115 kV transmission line and of the Eastshore and Dumbarton substations. Attachment DR20-1 of the response to Data Request #20 includes maps that show the locations of this transmission line and the two substations. The Eastshore to Dumbarton line was in place by 1948, as it is depicted in the 1948 USGS topographic quadrangle.

Reconductoring process

83. *A basic, layperson's discussion of the reconductoring process for the line, identifying the techniques used, equipment required, vehicles (land and air), personnel required, parking and staging areas needed, and time needed to complete the reconductoring. This shall include:*

- *Candidate locations (if available) and average acreage needed for tension and pulling stations, or, alternatively, the approximate number of pulling and tension sites and the average acreage per site,*
- *Stringing method (slack or tension),*
- *Need for reel or other storage near the lines,*
- *Method and access (cherry picker, climbing tower, etc.) to unclip the old conductor, install sheaves, and clip in the new conductor and "tension" lines, and*
- *General methodology for any needed tree trimming and brush clearing.*

Response: The Environmental Assessment for the Eastshore to San Mateo reconductoring included as Attachment DR20-2 contains a basic, layperson's discussion of the reconductoring process. As described in the Amendment Petition (Section 2.3.3.2), PG&E has determined that much of the reconductoring will be done using helicopters to avoid sensitive habitats near towers 3/22, 3/23, 3/24, 4/29, 4/30, and 4/31 and wetlands near towers 2/17, 3/22, and 3/24. Helicopter construction would avoid disruption of sensitive habitats by wheeled vehicles and would not require brush clearing and tree trimming to allow access by wheeled vehicles.

PG&E also determined that, because the project crosses habitat for the clapper rail and other nesting birds construction will only take place from September through January in sensitive habitats to avoid disrupting bird nesting.

Reconductoring tower access

84. *How access to the line and towers would be accomplished, including identifying any existing or needed access road to pull sites and staging areas;*

Response: See response to Data Request 84. Although PG&E has not specifically identified pull and tensioning sites and laydown areas for this reconductoring, they have conducted

an environmental and engineering assessment and determined that it will be feasible to avoid sensitive habitats with the placement of these areas. No new access roads would be necessary.

Tower modification or replacement

85. *If known, the location of any tower that would need to be modified or replaced, a basic description of the work that would be done to the tower, and a description of the potential impacts of that work;*

Response: PG&E has not indicated that any towers would require replacement for the reconductoring. They have indicated that tower repairs would be conducted by helicopter in sensitive habitat areas.

Substation expansion

86. *Identity of any substations that will be added or expanded as a result of the reconductoring;*

Response: PG&E has indicated that it will be necessary to expand Eastshore Substation as a result of the RCEC. Attachment DR17-1 to Data Request Response #17 is a biological assessment of the vacant area surrounding the Eastshore Substation within which the expansion would occur.

Maps and aerial photographs

87. *Recent aerial photographs (less than 5 years old) and topographic maps of the applicable line segments (i.e., the segments that would be replaced) with the transmission towers plotted on the photographs;*

Response: Attachment DR20-1 is a biological assessment of the Eastshore to Dumbarton reconductoring project and it contains topographic maps of the line, showing the tower locations. Recent aerial photographs are not readily available and cannot be obtained without substantial time and expense. These were not provided in 2001 for the Eastshore to San Mateo reconductoring. This level of analysis would not be appropriate for a reconductoring project, which is generally treated by the California Public Utilities Commission (CPUC) as a categorically exempt activity under CEQA.¹

¹Reconductoring of existing electric transmission lines on existing poles within existing rights-of-way is an activity that has been determined to generally have no significant effect on the environment. Section 21084 of the Public Resources Code requires the Secretary of Resources to include in the CEQA guidelines a list of projects that have been determined not to have a significant effect on the environment. The Secretary promulgated Cal. Adm. Code section 15302 which categorically exempted "replacement or reconstruction of existing structures and facilities where the new structure will be located on the same site as the structure replaced and will have substantially the same purpose and capacity as the structure replaced, including but not limited to: ... (c) Replacement or reconstruction of existing utility systems and/or facilities involving negligible or no expansion of capacity." When a project or activity is categorically exempt, a public agency is not required to prepare an EIR for the activity, except under certain limited circumstances that are inapplicable here.

See also CPUC Decision 03-08-033, *City of Santee v. SDG&E*, C.03-04-001 (August 21, 2003).

Sensitive habitats

88. *Identification of any sensitive habitats along the route by examining aerial photographs, conducting site visits, searching available databases (such as the Natural Diversity Database) and literature searches, etc;*

Response: Attachment DR20-1 to Data Request Response #20 is a biological assessment of the Eastshore to Dumbarton reconductoring project that includes the results of a California Natural Diversity Database search and the results of field surveys, and photographs of selected tower locations. It also contains a written narrative that describes the habitats at each tower location.

Habitat maps

89. *Legible map(s) depicting biological resources (habitat, nesting areas, etc.) within 500 feet of the outside edges of the right of way for the transmission line corridor;*

Response: See the response to Data Request #90. Also, please note that PG&E has planned to avoid any sensitive habitats and that there would be no potential impacts 500 feet beyond the right-of-way boundary. This level of analysis would not be appropriate for a reconductoring project, which is generally treated by the California Public Utilities Commission (CPUC) as a categorically exempt activity under CEQA.

Cultural resources sites

90. *Identification of known cultural resource sites within 1/2 mile of the route based on a California Historic Resource Information System literature search and contact with the Native American Heritage Commission. This information should be provided as a legible map depicting the cultural sites, and must be submitted under confidential cover;*

Response: This level of analysis would not be appropriate for a reconductoring project, which is generally treated by the CPUC as a categorically exempt activity under CEQA. Little or no ground disturbance is expected to occur as a result of the reconductoring, and no ground disturbance will occur where helicopters are employed.

Previous line modifications and upgrades

91. *If any portion of the line is more than 45 years old, describe modifications/upgrades, if any, that have been made previously and provide any information indicative of the historic significance of the existing transmission line segment to be reconducted;*

Response: This level of analysis would be out of proportion to the potential for impact from a reconductoring project, which is generally treated by the CPUC as a categorically exempt activity under CEQA. It can be presumed that the line has been subject to routine maintenance and repairs by PG&E over its useful life. The Applicant has no information regarding the historical significance of the existing transmission line. Changing conductors would not, in any case, cause a change in the potential significance of the line segment.

Previous substation modifications and upgrades

92. *If an existing substation needs to be modified as a result of the proposed project, and it is more than 45 years old, describe modifications/upgrades, if any, that have been made*

previously, and provide any information indicative of the historic significance of the existing substation;

Response: The extant Eastshore Substation was constructed sometime after 2001, replacing a previous, wooden-pole substation on the same property, which has been demolished.

Land Uses

93. *Legible map(s) showing existing land uses within 500 feet of the outside edges of the right of way, including identification of any school, hospital, daycare center, other sensitive receptors, and residential and commercial areas;*

Response: This level of analysis is out of proportion to the potential for impact from a reconductoring project, which is generally treated by the CPUC as a categorically exempt activity under CEQA. There would be no significant adverse impacts from the reconductoring project beyond the right-of-way boundary. Any impacts of installation (helicopter noise, etc.) would be negligible, temporary, and insignificant.

Potentially significant impacts

94. *Identification of any potentially significant impact to the environment that may occur as the result of the reconductoring, construction technologies that are available to mitigate an impact, and mitigation measures that would reduce the impact to a less than significant level, including the standard environmental mitigation measures developed generically by the transmission owner and/or the California Public Utilities Commission for reconductoring projects;*

Response: Because PG&E has agreed to construct the reconductoring project using helicopters to avoid sensitive habitats, there would be no potentially significant impacts from the reconductoring.

Permitting jurisdiction

95. *Identity of any agency or other interested party with jurisdiction or permit approval authority over any part of the reconductoring project; and*

Response: PG&E is a utility regulated by the CPUC. PG&E plans to seek a Certificate of Public Convenience and Necessity or its equivalent, from the CPUC.

Potential for impacts and mitigation

96. *In general, provide facts to support conclusions about the potential for impacts and feasible mitigation, including impact avoidance measures.*

Response: PG&E's plan to avoid sensitive habitats and wetlands by using helicopter construction (see Amendment Petition, Section 2.3.3.2) will ensure that PG&E avoids significant adverse impacts to the environment.